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Rural and Small Urban Multimodal Alternatives for Minnesota

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November 2014

Research Project
Final Report 2014-42

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This paper looks at alternatives for promoting and strengthening multimodal transportation in rural and small urban areas. It outlines 65 different innovative activities around the United States that have been undertaken to promote multimodalism in rural areas and smaller towns. These activities are grouped into six categories: improving transit options; accommodating alternative vehicles; supporting pedestrian and bicycle travel; multimodal land use planning; the use of financial incentives to promote multimodal land use development; and other alternatives that do not fit in these five categories. From this, six case studies have been developed. These case studies include retrofitting sidewalks in Olympia Washington: the network of interurban transit options in North Dakota; providing mileage reimbursement for seniors arranging their own rides in Mesa Arizona; the State of Oregon's "Main Street as a Highway" guidance for integrating highways into the fabric of smaller towns; the use to transportation impact fees to fund transportation infrastructure, including concurrency fees, development fees and special district fees; and a "Complete Streets" project in Clinton, Iowa.

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Final Report

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Executive Summary

This paper looks at alternatives for promoting and strengthening multimodal transportation in rural and small urban areas. It outlines 65 different innovative activities around the United States that have been undertaken to promote multimodalism in rural areas and smaller towns. These activities are grouped into six categories: improving transit options; accommodating alternative vehicles; supporting pedestrian and bicycle travel; multimodal land use planning; the use of financial incentives to promote multimodal land use development; and other alternatives that do not fit in these five categories. From this, six case studies have been developed. These case studies include retrofitting sidewalks in Olympia, Washington; the network of interurban transit options in North Dakota; providing mileage reimbursement for seniors arranging their own rides in Mesa, Arizona; Oregon's "Main Street as a Highway" guidance for integrating highways into the fabric of smaller towns; the use of transportation impact fees to fund transportation infrastructure, including concurrency fees, development fees and special district fees; and a "Complete Streets" project in Clinton, Iowa.

Chapter 1: Introduction

The dominant mode of travel in the United States today is by automobile. Multimodalism is when travelers are able to choose more than one mode to make a trip, typically an alternative beyond driving an automobile. Modes can be broken down in a number of ways. Modes can be defined by whether the trip is taken by mechanical or human powered means, i.e. walking and cycling versus motorized travel. Motorized travel can further be categorized by the type of vehicle used, i.e. automobile, bus, train, airplane, golf cart or other vehicle. It can also be categorized by whether the vehicle is public or private and whether the trip is shared or not.

There are substantial benefits when citizens can travel in ways other than single occupant automobile travel. Some benefits include reduced energy demands, improved air quality, better public health, increased economic activity, more intensive utilization of right-of-way and better quality of life.

The need for alternatives to driving is more significant in groups that are not able to easily drive an automobile. Over the next 20 years, the number of persons over the age of 65 is going to double. The number of persons with disabilities is forecast to grow faster than the overall population rate. (Gustafson, Bieleck, & Gillaspy, 2008) Also, 11% of the population in Minnesota lives in acute poverty. (United States Census Bureau, 2012) All of these groups have a limited ability to drive and need alternatives to live independently.

Despite the benefits of multimodalism, most travel is done by automobile. Although the Census does not frequently survey all trips, census data does show that the vast majority of journey-to-work travel is done by automobile. The 2009 National Household Travel Survey found that 83.4% of trips were by private vehicle, 1.9% by transit, 10.4% by walking and 4.2% by other modes. (U.S. Federal Highway Administration, 2009a) In Minnesota, the American Community Survey found that 87% of travel to work was done by automobile or truck, with 5% of people working at home, 3% walking to work, 3% biking to work and 2% taking a taxi. 78% of people going to work drove alone. (United States Census Bureau, 2011) Because most travel is done by private vehicles, multimodalism can be a challenge.

This challenge is even greater in rural and small urban areas. These areas have lower population densities, few high density destinations, land use patterns that are dependent on automobiles and a high rate of automobile ownership. There are also fewer social institutions to organize shared travel. The Rural Transit Fact Book documents these challenges. It found that only 3.8% of rural households had no vehicle available, as compared to 10.6 % of households in urban areas. Likewise, 6.3% of urban commuters used public transit and 3.2% walked to work. This compares to .6% of rural commuters using public transit and 1.8% walking to work. The number of urban travelers ages 50-64 using transit for any purpose on an average travel day was 5.6% while rural travelers used transit only .8%. (Small Urban & Rural Transit Center, 2012) In addition, the National Household Travel Survey found that people in rural areas drive more. 93.2% of men and 89.6% of women in urban areas drive while 95.6% of men and 95% of women in rural areas drive. This difference is even more dramatic for persons older than age 65. For persons older than age 65, 87.3% of urban men and 70.5% of urban women drive while 96.2% of rural men and 91.1% of rural women drive. (U.S. Federal Highway Administration, 2009b)

All rural and small urban areas face a core set of multimodal transportation issues. There can be demand for local circulation and bike/pedestrian alternatives for the general public. In addition, there is a desire to provide access to local services for low income, elderly and disabled populations. But not all rural areas are the same. Twaddell and Emerine (Twaddell & Emerine, 2007) categorized rural communities into three useful classifications with distinct transportation issues:

- Exurban communities exist on the fringe of most urban areas across the United States. The economic base of these areas has shifted from agricultural or mining production to being bedroom communities for urban areas. A local service economy is supported by higher wages from the urban area. This results in low density residential development and low density employment locations except at local shopping centers or malls. Transit needs include local circulation to retail/service centers plus long-haul commute to urban areas. Long-haul commute alternatives are often complicated because many persons who live in exurban areas work in lower density suburban areas, limiting high-density transit destinations. In Minnesota, exurban counties include counties like Wright, Sherburne, and Goodhue Counties. Most have been growing in population, although growth has stalled due to the recent recession and it is not clear that it will resume at previous levels.
- Destination communities are situated in locations featuring natural amenities such as mountains, lakes, or beaches which attract seasonal residents, retirees, and tourists. Despite retaining some traditional agricultural or mining activities, the core economy is a service-based economy built around a recreational activity. This can include ski areas, places with large national parks, recreational areas, casinos, cabin areas and many other destinations. These locations have the same needs for local access as other rural areas but also have tourist attractions which are destinations for both visitors and local workers. This can allow for specialized transportation both in terms of transit and bike/pedestrian travel in certain locations for both visitors and local residents. Most of these counties have also been growing in population, although growth has stalled due to the recent recession. In Minnesota, this includes both counties containing or near the Boundary Waters Canoe Area as well as counties in the Lakes Region in the middle of the state. These would include counties like Cass, Hubbard, and Lake of the Woods.
- Production communities usually depend on a production industry such as farming, ranching or mining. Usually these areas have experienced decades of population decline as farming and mining have needed fewer people. The density of destinations is typically not only low but has been declining. Small towns have disappeared but some regional centers have persisted. These areas have not been substantially affected by the recent recession, however. They have few concentrations of population or jobs and few walkable environments but they do have sizable low income and elderly populations who can benefit from multimodal options. Populations are rarely clustered. Transit needs often include intercity bus service as individual towns may not have all the services that residents need. Also social service transit for the elderly and disabled is a major issue as these populations become older. Bike and pedestrian options may depend on whether a small town retains or abandons traditional pedestrian/bike-friendly small town development patterns for automobile-oriented development. Examples in Minnesota would include Kittson, Yellow Medicine, and Clearwater counties.

Chapter 2: Project Summary

The focus of this project is to identify multimodal alternatives for Minnesota's rural and small urban areas that could be implemented or promoted by the Minnesota Department of Transportation and partner agencies. To do this, a scan of activities to provide and promote multimodalism around the United States has been done. This has resulted in a list of 65 innovative projects or activities that have been undertaken in other places around the country.

These 65 projects have been summarized into five broad strategies, each of which is broken down by whether they are best suited to exurban, destination or production communities where appropriate. These five strategies include:

- Strategy 1: Improve transit options: This includes local bus routes, flex routes, dial-a-ride services or even rural rideshare programs as well as combined or shared services. Depending on location, it can also mean:
    - Long-haul bus systems or commuter rail for exurban communities.
    - Tourist transit services which can also be used by residents for destination areas.
    - Intercity bus routes connecting regional centers for production areas.
- Strategy 2: Pedestrian/bicycle Improvements: Some small towns are working to bring back or expand existing pedestrian-supportive environments by building sidewalks, walking trails, complete streets and other amenities for pedestrians and bicycles.
- Strategy 3: Multimodal Land Use Planning: Most small towns were founded on a pedestrian-friendly grid system. Subsequent development has been auto-oriented but the foundation still remains. A number of towns are aggressively adopting multimodal land use plans with the intention of developing or bringing back walkable environments.
- Strategy 4: Financial Incentives for Multimodal Development: Some communities have gone beyond just including multimodal goals in their planning and created financial incentives for multimodal development.
- Strategy 5: Alternative Vehicles: There is a growing movement to allow golf carts and similar lower speed vehicles as alternatives to automobiles.

Other strategies: There are a number of programs that don't really fit under other categories. These include things use of on-line tools to promote shared rides in rural areas; state grants for local units of government to include multimodal approaches in their local plans and other activities.

Based on these five strategies, staff from the Minnesota Department of Transportation and partner agencies identified six areas that they wanted to have developed into case studies. These six areas included:

- Case Study Number 1: City of Olympia, Washington Extensive Sidewalk Construction: The City of Olympia Washington mostly developed during the automobile era. As a result, most of the city developed without sidewalks. This made it difficult to walk throughout most of the city. The City passed a voter referendum which linked enhanced parks with adding sidewalks throughout the City. The referendum was supported by parents who wanted safe routes to school for their children and by environmentalists who wanted alternatives to driving. But the key to voter approval was in linking recreation at parks with recreation

walking to and from parks. This tie between walking and recreating and parks was what won voter approval. As a result, the "Parks and Pathways" program is now retrofitting miles of sidewalks into neighborhoods.

- Case Study 2: North Dakota Intercity Bus Service: Many small towns do not have a complete set of services for residents so they have to travel to other cities for basic necessities. Alternatives to driving can help keep elderly and disabled persons in their communities rather than moving to larger cities. North Dakota has the third lowest population density in the United States. Despite this, it has a network of buses that connect small towns to larger regional centers that allow residents to access needed services not provided in their community. It also focuses on its interregional corridors, providing overlapping services to larger regional centers, which provides more opportunities for riders to obtain goods and services.

- Case Study 3: City of Mesa (Arizona) Senior Services Reimbursement for Car Trips: A non-profit in Mesa Arizona implemented a program to reimburse eligible seniors for car trips provided by other individuals. This put the seniors in control of managing their own transportation while providing an incentive for other travelers to provide a ride. This program was successful and was moved to the regional transit provider for expansion. It did not scale up well, however, and has been recently replaced with a program where eligible persons can purchase discounted fare media that can be used both in public transit and in private taxis.

- Case Study 4: Oregon "Main Street as Highway" Guidance: Oregon was undertaking a rewrite of its Highway Manual. At the same time, discussions were occurring between different parts of the Oregon Department of Transportation and smart growth advocacy groups on how to make smaller communities more walkable and pedestrian-friendly. One obvious problem is that most small towns are built around highways. In fact, unless a bypass has been built, the main street of a small town is also typically a highway. This creates a conflict between groups who want to move vehicles efficiently and groups who want to pedestrian-friendly downtowns. Two major deliverables came out of these discussions. First, the Oregon Highway Manual added a functional classification for the portion of roadway that runs through small towns. This functional classification has very different design standards than other classifications of roadways – design standards created to accommodate walking, biking, commercial activity along the roadway, parking along the roadway and many other small town needs. Second, "A Highway Runs Through It" was written to help local government to understand their options for creating a multimodal environment and better advocate for their interests with ODOT. The document shows examples of design options, explains ODOT funding processes and how to successfully advocate for projects and it shows examples of these principles implemented. Local governments can then adopt these elements and standards into their local plans, which ODOT must work with when doing highway improvements.

- Case Study 5: Transportation Impact Fees: As resistance to broad-based taxes increases, there has been a shift to using fees linked to specific projects to fund transportation. There are numerous ways that this is implemented. One is concurrency laws. Concurrency laws require that capacity in governmental systems exist or be planned before development can

occur. If capacity does not exist, development cannot occur. This means that capacity for the transportation system, water system, sewer system, school system and other public infrastructure must keep up with growth. Concurrency also means that it is possible to specifically link projects to expand capacity to the individual development driving those projects. This allows assigning fees to that development. In the State of Washington, a number of cities use concurrency to set transportation fees paid by new development. Bellingham Washington uses this kind of system to raise funds for transportation projects.

There are other ways of using fees to fund transportation. A second way of using impact fees is by having new development pay a fee, without the process of concurrency. Contra Costa County, California is the county to the east of Oakland. It uses impact fees to fund specific transportation projects. It puts together a capital plan for transportation improvements in various parts of the county and then sets a fee that is paid by new development to fund that infrastructure. Fees vary from under $1,000 to over $15,000 depending on where new development is occurring. It expects to raise over $845 million dollars from 2014 to 2030 using such a mechanism to fund of the road system.

Other states allow local units of government to create special districts to fund transportation projects. These districts can be as small as within a single city or township to as large as including multiple counties. Typically a special unit of government is created to levy the tax within the district. Funding options vary by state but can include property taxes, special assessments, sales taxes, tolls or fees. Five states are outlined in the case study: Arkansas, Colorado, Idaho, Missouri and South Dakota. Minnesota is one of 16 states that do not use special taxing districts to fund highway projects although it does use them for transit.

- Case Study 6: Clinton, Iowa Complete Streets: Clinton, Iowa is a city with a population of 27,000 on the Mississippi River in eastern Iowa. It is on U.S. Highway 30, the Lincoln Highway. Southwest of downtown Clinton, for 1.75 miles, U.S. Highway 30 splits into Liberty Avenue, which is three lanes and northeast bound, and Comanche Avenue, which is three lanes and southwest bound. Between the two was a 200 foot empty stretch of land.

  Up until 1995, a rail yard ran along the edge of part of this roadway. In 1995, the rail yard closed which provided the opportunity to redevelop both the land along the Lincoln Highway but also the land between the two roadways. The City created a comprehensive long-range plan which included remediating soil contamination, purchasing land for redevelopment, realigning the two streets, and increasing transportation choices with a “complete streets” design. The reclaimed land will support a multi-use path, sidewalks and connections to cross streets. Approximately $50 million has been secured for the project. Approximately $30 million has been used for the roadway realignment and reconstruction and another $20 million for land acquisition associated with redevelopment. A $2.7 million Transportation Investment Generating Economic Recovery (TIGER) grant was received from the United States Department of Transportation in 2012 to pay for a multi-use trail which provides a direct connection to the Mississippi River Trail, decorative lighting and plantings. In the future, land will be sold for higher density, walkable development.

Chapter 3: Innovative Multimodal Activities in the United States

This section of the report provides a list of 65 different innovative activities being undertaken around the United States to promote multimodalism in rural areas and small towns. The six basic strategies being pursued in the United States include:

Strategy 1: Improve transit options. There are a number of alternatives for improving transit in rural areas, focusing on local access to retail by low income, elderly and disabled populations. This can be done by local bus routes, flex routes, dial-a-ride services or even rural rideshare programs. It can also mean improved dial-a-ride services through the use of combined or shared services.

In addition, depending on whether a rural area is an exurban, destination or production area, there can be additional needs and opportunities.

- For exurban communities, long-haul bus systems or commuter rail can be developed to link rural areas to urban areas. These systems can also have local feeder components which can have a synergy with typical needs for the elderly, low income and persons with disabilities.
- For destination areas, transit service for tourists can be developed. This service can also serve local residents, as many residents work at tourist destinations.
- For production areas, intercity bus routes can allow residents to access retail, medical services and other needs in other urban areas.

Strategy 2: Pedestrian/bicycle Improvements: Small towns typically started with walkable environments, with grid streets, smaller lots and sidewalks. But this development pattern has often been overridden by automobile-focused development as cities grow. Also, the main street in many small towns is actually a highway and over time gets treated and developed like a highway. Both of these choices can push development away from pedestrian-friendly environments to automobile-focused environments. Some small towns are working to bring back or expand existing pedestrian-supportive environments by building sidewalks, walking trails, complete streets and other amenities for pedestrians and bicycles.

Strategy 3: Multimodal Land Use Planning: As noted above, many small towns were founded on a pedestrian-friendly grid system. Subsequent development has been auto-oriented but the foundation still remains. A number of towns are aggressively adopting multimodal land use plans with the intention of developing or bringing back walkable environments. These improvements can be imbedded in larger activities to bring back the "small town feel" or "historic nature" of small towns. Multimodal planning in small communities can include things like Complete Streets, bike/pedestrian goals in comprehensive plans, "traditional development" requirements in zoning requirements and other strategies.

Strategy 4: Financial Incentives for Multimodal Development Some communities have gone beyond just including multimodal goals in their planning. Some have created financial incentives for multimodal development. This can include multimodal development districts, waiving of development fees or waiving of other costs and requirements for higher density, walkable, mixed use development.

Strategy 5: Alternative Vehicles: Another alternative to reduce automobile travel is to shift travel to other vehicles. There is a growing movement to allow golf carts and similar lower speed vehicles as alternatives to automobiles. In some places like Florida, this innovation is being driven by the desire to provide mobility to the elderly. In other places like Colorado, Indiana and Georgia, this movement is being supported by individuals who are looking to cheaper alternatives to automobiles and cheaper alternatives to gas-powered vehicles. Also, because many of these vehicles are powered by electricity, there is the opportunity to couple them with solar power arrays to create free power. These alternative vehicles are even being adopted in colder climates.

Things that don't fit anywhere else. There are a number of programs that don't really fit under the other categories. These include things like intensive collection of cell phone location and trip data to better understand unmet travel needs; the use of on-line tools to promote shared rides in rural areas; state grants for local units of government to include multimodal approaches in their local plans and other activities.

Strategy 1: Improve Transit Options

Exurban Areas

1) City of Holyoke (Massachusetts) Intermodal Facility (population 39,000)

The former Holyoke Fire Department Headquarters is being renovated by the Holyoke Intermodal Facility, LLC, a private development firm. The project includes seven bus loading bays, a Pioneer Valley Transit Authority bus ticketing counter and information booth, a customer waiting area, a driver rest area and public restrooms. Peter Pan Bus Lines will also provide bus service from the facility. Both transit providers have linkages to Boston and Albany. The second floor will be leased to Springfield-Holyoke-Chicopee Head Start for its daycare and preschool programs and the third and fourth floors will be leased to Holyoke Community College for adult literacy programs.

Links:

http://www.holyoke.org/~cityholy/images/stories/dept_planning/Projects/HTC_Project_Sumarry_Sheet.pdf

http://www.epa.gov/region1/brownfields/success/11/Holyoke.pdf (Brownfield grant)

Contact: Karen Mendrala, (413) 322-5575 MendralK@ci.holyoke.ma.us

2) Columbia County (Oregon) Transit Center (population 49,000)

Columbia County Rider provides general public transportation within Columbia County, and to surrounding counties. Their hub is in St Helens, which is approximately 65 miles northeast of Portland Oregon. They run six fixed or flex routes and dial-a-ride service, including two long-haul (over an hour long) routes to Portland and surrounding areas. They are currently building a transit center to serve as a hub for all their service and a park and ride.

Link: http://www.columbiacountyrider.com/11.html

Contact: Janet Wright janet.wright@co.columbia.or.us

3) *MAGIC (Massachusetts) Shared Transportation Resources among Five Municipalities (population 52,000)*

MAGIC is a sub-region within Massachusetts where 13 cities have banded together to do joint transit planning and service delivery. This area includes the cities of Acton, Bedford, Bolton, Boxborough, Carlisle, Concord, Hudson, Lexington, Lincoln, Littleton, Maynard, Stow and Sudbury.

The MAGIC sub-region has very limited public transit options. Currently each city operates its own transit service. Because service is managed separately in each town but the number of destinations is limited, vans travel in parallel to the same destinations, each one carrying only a few passengers at a time. In addition, non-profits also operate some transit, which overlaps with municipal services.

Magic conducted a study in conjunction with the Massachusetts Metropolitan Planning Organization (www.mapc.org). Out of this came the "Shared Transportation Resources among Five Municipalities and One Business" project. With this project, service planning and routing would be combined and rationalized although organizationally each transit provider would remain separate. Each vehicle (public and private) would be equipped with GPS and a passenger counter. Desired destinations, routes and route volumes could then be analyzed and rationalized without radical organizational change. Implementation of this project was funded in 2012 and was expanded to two additional communities in 2013.

Also, a Transportation Management Association (TMA) is being created to organize all vans and shuttles (both public and private) into a shared system open to everyone. It would supported through a combination of state funds, local funds, and once the TMA is up and running, private business contributions. This is planned to be implemented in 2014.

Link:
www.ctps.org/bostonmpo/4_resources/1_reports/1_studies/3_transit/suburban_phase3.html

Contact: Eric Halvorsen ehalvorsen@mapc.org

4) *City of Ames (Iowa) Intermodal Facility (population 59,000)*

The Ames Intermodal Facility is a cooperative venture between the City of Ames, CyRide (the Ames bus system) and Iowa State University. The project constructed an Intermodal Transportation Facility in Ames, which links public transit, intercity bus carriers, regional airport shuttle services, carpools/vanpools, taxis, bicycle commuters and pedestrians. Funding for the facility was secured through a federal TIGER grant and through the State of Iowa's Intercity bus program. The facility is located at Hayward Avenue and Chamberlain Streets and is a hub for transit service in Central Iowa.

Link: https://aif-parking.sws.iastate.edu/

Contact: parking@iastate.edu

Destination Areas

5) City of Breckenridge (Colorado) Intermodal Transit Station (population 4,200)

Breckenridge (population 4200) is the center of a large number of ski slopes and resorts. Breckenridge Station was constructed to be the central hub for the Free Ride Transit System (City of Breckenridge) and the Summit Stage (Summit County) public transit providers. Both providers have service to ski slopes and resorts as well as to local services like shopping and medical providers. Passengers can also transfer between systems and to dial-a-ride services at this location. They can also access the Breck Connect Gondola for winter express service to skiing.

Link: http://www.townofbreckenridge.com/index.aspx?page=511

Contact: http://www.townofbreckenridge.com/index.aspx?recordid=54&page=381

6) City of Ketchum (Idaho) Multimodal Center (population 2,400)

Mountain Rides Transportation Authority will be using 5309 SGR/Livability funds to construct a new downtown multimodal and customer service center in the City of Ketchum. It This will link transit service that serve tourist areas in the Sun Valley area with the City of Ketchum and also provide a hub for local transit services.

Link: http://www.mountainrides.org/

Contact: Jason Miller jason@mountainrides.org

7) Laughlin (Nevada) Transit Coalition Casino Express (population 8,200)

Laughlin is a resort town in southern Nevada about 90 miles south of Las Vegas. The casinos in downtown Laughlin are the major employers in this city. Casinos are a unique transportation challenge in that they are centers of employment and tourism but the hours that employees are needed are spread throughout the 24 hour period.

The Southern Nevada Transit Coalition (SNTC) is a non-profit organization that is a coalition of 27 governmental, non-profit and for-profit organizations. SNTC operates the Silver Rider service, which provides both fixed-route and demand-response services throughout several rural communities. Two fixed-route buses operate in Laughlin. Route 777 operates 24 hours a day, seven days a week. Route 888 runs 18 hours a day, seven days a week. The routes provide hourly connections between the casinos, residential neighborhoods, and other activity centers in Laughlin. The routes are designed as one-way loops and in effect, given the size of the community, provide 30-minute service to most destinations. Both routes are open to the general public, however, and fares are collected. SNTC also operates express trips to Las Vegas three days a week and dial-a-ride service.

Link: www.sntc.net

Contact: Debbie Dauenhaue sntced@cmaaccess.com

8) Olympic Peninsula Public Transit Services Integrated System Information

The Olympic Peninsula in northwest Washington State is served by six transit systems: Clallam Transit System (Port Angeles), Grays Harbor Transit (Aberdeen), Intercity Transit (Lacey, Olympia), Jefferson Transit (Port Townsend), Kitsap Transit (Bremerton, Port Orchard) and Mason County Transportation Authority (Shelton). There are many tourists and hikers in the area as well as year-round residents and workers in the tourism industry. The different systems worked together to develop an integrated experience despite retaining their separate transit systems. They created transit stations in each town, integrated schedules and provided information on all six systems in one place. That allows tourists to move from system to system seamlessly. Each system still retains its individual operations however.

Link: http://www.olympicpeninsula.org/sites/default/files/onp_transit_guide_2012.pdf

9) Northern Arizona Intergovernmental Public Transportation Authority (NAIPTA) Integrated Tourist/Local Transit Service (Arizona)

The Sedona/Red Rock region, located 30 miles south of Flagstaff has a population of about 15,000 but hosts 4-5 million visitors a year due to area state and national parks. There was a growing concern that the increasing population and increasing numbers of tourists would create an unsustainable transportation system. The City of Sedona, Yavapai and Coconino counties, Coconino National Forest, the Northern Arizona Council of Governments and the Community Transportation Association of America put together a plan called "Ensuring a Livable Future: Transportation and a Strategic Vision for the Greater Sedona Community." From this, in 2003, the Northern Arizona Intergovernmental Public Transportation Authority was created. NAIPTA is a regional organization including Coconino and Yavapai Counties, the City of Flagstaff, and Northern Arizona University. It now operates regular route, BRT for tourism, fixed route to Northern Arizona University and dial-a-ride services.

Link: www.naipta.az.gov/

Contact: Jeff Meilbeck jmeilbeck@naipta.az.gov (928) 679-8909

10) City of Moscow (Idaho) Multimodal Center (population 24,000)

The City of Moscow has just opened a multimodal center, named the ITC or Intermodal Transit Center. The ITC links services provided by the local transit provider Moscow Valley Transit, the University of Idaho's Vandal Shuttle and intercity bus service provided by Northwestern Trailways. The facility also provides access for taxis, vanpools and carpools, and expands pedestrian and bicyclist accessibility with access to Paradise Path. The Path offers access to the University of Idaho, many of Moscow's public parks, several schools, and numerous business areas and neighborhoods. The ITC is part of a larger planning effort called "Moscow on the Move," which was originally started in 2009 to develop a balanced, sustainable, and efficient multimodal transportation plan for the City.

Links:
http://www.ci.moscow.id.us/engineering/moscowonthemove
http://i-way.org/announcements/moscow-intermodal-transit-center-grand-opening

Contact: Alisa Stone astone@ci.moscow.id.us and Kevin Lilly klilly@ci.moscow.id.us

Production Areas

11) Clallam County (Washington) Intercity Transit (population 71,000)

Clallam County operates an intercity bus system linking a number of cities with populations between 5000 and 20,000. They operate 14 routes and link nine small towns. These routes carry workers between the cities as well as seniors and low income individuals who need services that are in cities other than the ones they live in. They operate three transit hubs, one in Port Angeles, one in Sequim and one in the City of Forks. They also coordinate with Jefferson Transit (Jefferson County) which provides long-haul trips to Seattle, Olympia, SeaTac and ferry connections.

Links: http://www.clallamtransit.com/
http://www.clallamtransit.com/images/downloads/maps/clallamoverallmap.jpg

Contact Terry Weed (360) 452-1315

12) State of North Dakota Intercity Bus Service

North Dakota, despite being extremely low density, maintains interregional transit. This is especially important as many communities are small enough to not have full retail or medical services. Although some of this service is subsidized through the State Department of Transportation, most costs are covered through fees paid by riders.

Link: http://www.surtc.org/resources/maps/ndintercity1.php

13) Buffalo County (Nebraska) Community Health Partners Transportation Social Work Group (population 46,000)

Ten organizations contract their vans and busses to "Reach Your Destination Easily" (RYDE), which runs both fixed routes and dial-a-ride service. This is done in lieu of each organization operating its own vehicles independently. The shared operation allows much better coordination of trips and operations. R.Y.D.E. provides approximately 400 to 450 dial-a-ride trips per day through and regular route service in Adams, Franklin, Gosper, Kearney, and Hamilton Counties.

Link: http://www.mnca.net/ryde.html

Contact: RYDE@mnca.net

*14) State of Montana Intercity Bus Service Study**

Although not a project, the Montana Intercity Bus Service Study summarizes the activities of most rural intercity bus service in the United States. It contains a number of good cases on successful intercity bus service, which can be important in low density areas where individual cities may not be able to support all of the services that individuals need to live.

Link:http://www.mdt.mt.gov/other/research/external/docs/research_proj/intercity/final_report_dec11.pdf

Contact: David Kack (406) 994-7526 dkack@coe.montana.edu

15) Martin County (North Carolina) Transit Social Service Coordination (population 24,000)

Previously, human service agencies in Martin County provided their own transportation service using their own vehicles and drivers. Now they all purchase transportation from Martin County. Martin County Transit employs a brokerage system with centralized dispatching and centralized vehicle ownership. Agencies purchasing transportation from Martin County included: the Martin County Council on Aging, Martin Enterprises (ADAP), Martin County Community Action Agency, Tideland Mental Health Center, Tideland Child Development Center, Martin Health Department, Martin County Department of Social Services, Martin General Hospital, and the Martin County Board of Education.

Links: http://www.ncdot.org/transit/transitnet/PublicInfo/Gazetteer/Martin.html
http://www.martincountyncgov.com/transit

Contact: 252-789-4390

16) South Sound for Seniors (Thurston and Mason Counties, Washington) Volunteer Drivers Network (population Thurston, 252,000 and Mason, 61,000)

"South Sound for Seniors" has developed a network of volunteer drivers as an alternative to dial-a-ride services for areas that are low enough density to not support regular dial-a-ride service. The Transportation Program is funded by private contributions, the United Way, Lewis-Mason-Thurston Area Agency on Aging and by private grants. Seniors are charged a fare if they can afford it.

Link: **http://www.southsoundseniors.org/**

17) Menominee Indian Reservation (Wisconsin) Public Transit Shared Revenue Streams (population 3,200)

The Menominee Indian Reservation has a high percentage of individuals without automobiles. It also has a high level of poverty and a high percentage of elderly and disabled individuals. To address this problem, they have merged funds from Section 5317 (New Freedom), Section 5311, gambling revenues, local tribal colleges and social service programs to support a local bus system. They also use the same vehicles and trips to provide Meals on

Wheels, who also pays a portion of the transit costs. Pooling all these revenues has allowed supporting a modest transit system.

Contact: Shawn Klemens (715)799-5264 Menominee Regional Public Transit, P.O. Box 910 Keshena, Wisconsin

18) City of Mesa (Arizona) Senior Services Reimbursement for Car Trips (population 450,000)

Mesa Senior Services Enabling Transportation (E.T.) program provides qualifying clients a 34 cents per-mile reimbursement for car trips when a friend, non-residing family member, or neighbor volunteers to drive for them. ET does not assign drivers; rather, passengers choose their own drivers. Reimbursements are made directly to the participating ET passengers, who are required to pass along the payment to their volunteer drivers. The program provides reimbursements for medical appointments, grocery shopping, personal errands, banking, religious activities at a place of worship, volunteer work, as well as trips to Mesa Senior Services.

Link: http://mesaseniorservices.com

Contact: (480) 962-5612

19) County of La Crosse (Wisconsin) Taxi Service (population 115,000)

La Crosse County contracts with Running, Inc. to provide a taxi service within La Crosse County, primarily in Bangor (population 33,000) and in surrounding rural areas. Costs are $3 for a general ride within Bangor and $5 in the rural areas.

Link: http://www.runninginc.net/lacrosse-county.html

Contact: contact@runninginc.net (608) 637-2599

Strategy 2: Pedestrian/Bicycle Improvements

20) City of Ranson and City of Charles (West Virginia) Town Green Corridor Revitalization (population 3,000 and 5,300)*

City of Ranson and City of Charles Town are doing a Green Corridor Revitalization that will link a "complete street" improvement of the main commercial roadway (Fairfax Boulevard – George Street) to a new regional Commuter Center for bus and rail transit access. The new facility, the Charles Town Commuter Center, will link regional MARC commuter rail with the PanTran public transit system. The project also received HUD Challenge funding to support a $350,000 "Plan Ranson" initiative that will provide small area planning around the Fairfax Boulevard/George Street corridor, the downtown brownfields revitalization area and in an undeveloped, annexed areas outside of the city.

Link: http://ransonrenewed.com/wp-content/uploads/2011/09/2010-10-21-Narrative-Briefing-Sheet.pdf

Contact: Sarah Kleckner skleckner@cityofransonwv.net

*21) City of Olympia (Washington) Extensive Sidewalk Construction (population 47,000)**

When Olympia, WA first developed, it uncharacteristically for most development of the time, omitted sidewalks from city streets. In the 1950's and 1960's, when it experienced substantial growth, it also did not put in sidewalks. From 1997 to 2003, the city's Bicycle and Pedestrian Advisory Committee developed an inventory and rank city sidewalk needs. Sidewalk advocates formed Walkable Olympia Neighborhoods (WON!) to lobby for sidewalks. They joined with Olympians for a Livable Community: Parks, Open Space, and Sidewalks (OLC),the Parks Advisory Committee and the Bicycle and Pedestrian Advisory Committee to push for funding for sidewalks. In September 2004, Olympia voters approved a 3 percent tax on electricity, natural gas and telephone utilities, with one third of the proceeds dedicated to sidewalk construction and the balance to parks and open space acquisition and development. The measure increased sidewalk funding from $150,000 to $1 million per year. The Parks & Pathways program plans for construction of over 13 miles of new sidewalks over a 20-year period.

Link: http://olympiawa.gov/~/media/Files/PublicWorks/PDFs/City-of-Olympia-Sidewalk-Program-2003.ashx)

Contact: Sophie Stimson publicworks@ci.olympia.wa.us

22) City of Pullyaup (Washington) Downtown Revitalization Plan (population 32,000)

The City of Pullyaup is working to revitalize its downtown to be pedestrian scale with multimodal transit options and wide mix of uses. By doing this, it is hoping to reduce auto dependency and increase multimodal options. Washington State has a stringent State Environmental Policy Act (SEPA) which requires cities to undergo in essence an environmental impact statement for its long-term plans to identify possible environmental impacts that may result from governmental decisions. This statement is called a "Planned Action Environmental Impact Statement' (PAEIS) and requires local units of government to disclose adverse environmental impacts. This forces local units to examine multimodal alternatives in order to reduce negative environmental impacts.

Link:http://www.cityofpuyallup.org/agendas/docs/2011/PLAN/20110713_668/2671_Downtown%20Vision-NE.pdf

Contacts: Nancy Eklund, (253) 841-5462 nancye@ci.puyallup.wa.us
Tom Utterback (253) 841-5479 tomu@ci.puyallup.wa.us

*23) City of Beaufort (South Carolina) Walkable Downtown (population 12,500)**

The City of Beaufort and Beaufort County are transforming Boundary Street from a strip commercial corridor into a compact, connected mixed-use district. To this end, they created the Boundary Street Redevelopment District. Funding for public infrastructure will come from tax increment financing. Public infrastructure improvements are focused around complete streets which will support a walkable environment and also transit improvements.

Link: http://www.cityofbeaufort.org/Data/Sites/1/media/projects/boundarystreet/beaufort-media-kit_boundary-st_8-5-x-11-final-draft.pdf

Contact: boundarystreet@cityofbeaufort.org and www.beaufortcivicinvestment.org

24) City of Lebanon (Oregon) "Build Lebanon Trails" Nonprofit Partnership (population 15,000)

"Build Lebanon Trails," a non-profit, is partnering with the City of Lebanon to design and build more than 50 miles of hiking and walking trails around Lebanon, Oregon. Currently, 7 miles of trails have been built within the city. They are continuing to work to attract funds to the community through fundraising for capital construction costs for trails.

Link: http://buildlebanontrails.com/

Contact: pw@ci.lebanon.or.us

25) City of Warrenton and Clatsop County (Oregon) Non-profit Trails Organization (population 3,300 and 37,000)

Warrenton has created both a trails plan as well as a non-profit oriented towards promoting the addition and use of trails. They have developed over 25 miles of trails, including walking trails in Warrington and are working to add more through private fundraising.

Link: http://www.warrentontrails.org/

Contact: WTA@WarrentonTrails.Org

26) City of Piqua Ohio Linear Park (population 20,600)

Linear Park used to be a rail line but was turned into a park starting in 2001. The old rail line runs through the city and through the downtown. Because of this, it is used for commuting and accessing retail as well as for recreational activities.

Link: http://www.piquaoh.org/parks_linear.htm

Contact: Thomas Zechman tzechman@piquaoh.org

27) City of Lewiston (Idaho) Pedestrian/Transit Improvements (population 32,000)

The City of Lewiston's Public Works Department and their transit agency, "Ride the Valley" are collaborating on installing about a mile of new sidewalk along a transit route that was

identified through their bicycle and pedestrian planning efforts as an important corridor for pedestrian improvements. This project was collaboration between transit and public works to meet pedestrian and transit needs.

Link: http://www.cityoflewiston.org/index.aspx?nid=1280

Contacts: Shawn Stubbers, Lewiston Public Works, SStubbers@CityofLewiston.org
Sandi Hagemann, Lewiston Public Works, SHagemann@CityofLewiston.org
Shannon Grow, Transit Manager. SGrow@CityofLewiston.org

28) City of Lewiston (Idaho) Complete Streets Project (population 36,000)

The City of Lewiston is doing a major rebuild/redesign of a primary street downtown as a Complete Street with an improved connection to their river levee pathway. This is being done to improve walkability in the City.

Link: http://www.cityoflewiston.org/index.aspx?NID=1150

Contacts: Shawn Stubbers, Lewiston Public Works, SStubbers@CityofLewiston.org
Sandi Hagemann, Lewiston Public Works, SHagemann@CityofLewiston.org

29) City of Hailey (Idaho) Complete Streets Project (population 7,800)

The City of Hailey is received an ARRA grant for a Complete Streets project. It is still under development but the goals are to increase walkability in the city.

Link:http://www.haileycityhall.org/Announcements/Woodside%20Blvd/Project%20Narrative%20for%20Web.pdf

Contact: Micah Austin, Community Dev. Dir., micah.austin@haileycityhall.org

30) City of Idaho Falls (Idaho) Memorial Drive Renovation(population 57,000)

Idaho Falls has redesigned their major downtown roadway, Memorial Drive. They removed asphalt and made it more walkable. There is a new path to the river. They also have a trolley circulating through the downtown. All of this was done to provide alternatives to driving.

Link:http://www.idahofallsidaho.gov/wwwroot/userfiles/files/planning/ifra/memorial_drive_concept_111118.pdf

Contact: Brad Cramer, City Planner, BCramer@idahofallsidaho.gov
DaNiel Jose, BMPO, DJose@bmpo.org

31) City of American Falls (Idaho) Complete Streets (population 4,457)

The City of American Falls is using a variety of funding sources, including a TIGER grant to fund an extensive Complete Streets project in their downtown. This is being done to accommodate people on foot, on bikes and on buses to encourage local shopping.

Link: http://www.dot.gov/sites/dot.dev/files/docs/TIGER_2011_AWARD.pdf

Contact: Dusty Whited (208) 226-2569

32) City of Concord (New Hampshire) Complete Streets (population 42,000)

Concord (population 42,000) is doing a complete streets project that will reconstruct the highway that runs through the city from four lanes to three lanes, add wider shoulders to accommodate bicycles, and bring sidewalks into ADA-compliance. This will also result in slower travel speeds.

Link: http://nh-concord.civicplus.com/DocumentCenter/View/1772

Contact: Edward Roberge eroberge@concordnh.gov

33) City of Clinton (Iowa) Complete Streets (population 26,000)

The City of Clinton is doing a "Complete Streets" that connects to regionally significant bike and pedestrian trails. This is being done in coordination with a larger roadway project that will reconstruct 1.8 miles of Camanche Ave (U.S. Highway 30). The city will shift the roadway to create more space between Camanche Avenue and the properties bordering it to make more space for pedestrians and bikes.

Link: http://www.ci.clinton.ia.us/

Contact: Michael Reynolds 563-833-7520

34) City of Dubuque (Iowa) Millwork District Complete Streets (population 59,000)

Dubuque's Historic Millwork District is receiving a "Complete Streets" treatment as part of a larger development strategy. It is estimated that 60 percent of the new residents within the District will work downtown, which is adjacent to the District. This provides the opportunity to walk, bike or take transit to work. The City is improving pedestrian connections, increasing transit service, adding bike lanes, improving sidewalk experiences and deemphasizing automobile impacts.

Link: http://www.cityofdubuque.org/index.aspx?NID=1264
http://www.cityofdubuque.org/DocumentCenter/Home/View/1115

Contact: Don Voight dvogt@cityofdubuque.org

35) City of Saint Albans (Vermont) Streetscape Project (population 6,900)

Saint Albans is doing a downtown streetscape project that will reconstruct existing sidewalks with new materials and add new sidewalks, add pedestrian amenities such as lighting and benches and add signalized intersections. This will create a more walkable environment.

Link: http://www.stalbansvt.com/index.asp?SEC={A664DD6B-E75E-49F6-B7EC-9C48B4AF8A73}&Type=B_BASIC

Contact: Chip Sawyer c.sawyer@stalbansvt.com

*36) Oregon "Main Street as Highway" Guidance**

Many small towns developed around one or two roads that ran through town. Most of these roads were established before there were automobiles and developed with pedestrian-friendly, walkable environments. As automobiles arrived, these roads grew into highways and now highways run through the middle of towns. As highways developed, the pedestrian orientation that originally existed may have been overwritten by the desires for ease of auto travel. Some may have kept a historic land use of a mix of uses and multi-story buildings fronting a sidewalk despite the roadway being a highway. Others may have been given over to strip development, large parking lots and multiple lanes. Regardless, they have been designed for higher speeds and enforcement may be lax, meaning these standards may be exceeded. There also may be heavy truck traffic in agricultural or mining areas.

One of the dilemmas in small urban multimodalism is that highways themselves may be a hindrance to other modes of travel, especially as the highway runs through a small town. Oregon has attempted to help address this problem by providing guidance on what can be done to mitigate highway impacts in smaller cities. This includes a summary of planning and zoning changes that can be made to support improved multimodal environment – things like roadway area design, local street network design, sidewalk design, development requirements and ways of leveraging existing funding to create these changes.

Link: http://www.oregon.gov/lcd/tgm/docs/mainstreet.pdf

Contact: Pamela Kambur Pamela.Kambur@state.or.us

37) City of Mosier (Oregon) Bike Multimodal Center (population 491)

The City of Mosier is along the Pacific coast, on the Mosier Twin Tunnels and the Mark Hatfield West Portal trail. Because of this, they typically have about 2000 bikers a day through the city plus hikers. To help stop the City being overwhelmed by so many people, the City has proposed the Mosier Hub, a multimodal rest area. This facility would provide rest rooms, drinking water, bike repair facilities and wayfaring primarily for bikers and hikers.

Link: http://www.oregon.gov/ODOT/TD/AT/NOI/Mosier.pdf

Contact: mosiercityhall@mosierwinet.com

Strategy 3: Multimodal Land Use Planning

*38) State of Florida Concurrency Laws (statewide)**

"Concurrency" is a policy and regulatory process that requires local governments provide adequate public facilities and services at the time new development occurs. This forces government to keep up with public infrastructure requirements before development occurs rather than pushing it off to some indefinite future. Concurrency was first mandated in Florida and now mandated in the State of Washington.

Local governments are required to maintain a "concurrency management system" to track impacts of new development. A major component of the concurrency management system is a database that allows the City to reserve available capacity in public infrastructure for specific development projects. This assignment of capacity is called "capacity reservation." A "concurrency review" is the process to determine if a development is concurrent and to reserve capacity in public services.

Currently Florida concurrency includes sanitary sewer, solid waste, drainage, water supplies and potable water facilities. Up until 2011, Florida included transportation, parks and schools. In Florida, transportation has been removed from State concurrency requirements due to the difficulty of funding adequate transportation alternatives. The state law still allows local units to include transportation in their concurrency laws, including capacity in alternative modes such as transit and pedestrian/bicycle facilities.

Despite the law having been repealed statewide in 2011, many local units of government in Florida still include transportation concurrency in their local planning processes. This has led to systems which provide incentives for multimodal land use development. Some are outlined later in this document.

A good explanation of concurrency in Florida is here:
http://www.talgov.com/growth/growth-confaq.aspx

39) City of Pendleton (Oregon) Transportation-Efficient Land Use Plan (population 16,700)

In 1996, the City of Pendleton developed an integrated land use/transportation plan that chose a land-efficient option for development over normal development. This was done based on land use/transportation modeling that evaluated the various alternatives. Based on this, they adopted transportation efficient land use ordinances, requiring smaller urban-style lots, grid streets, sidewalks, bike lanes and other multimodal-friendly requirements. This is unusual in that the City is only a city of 16,000 but is working to move from an auto-oriented land use model to a multimodal one.

Link: https://scholarsbank.uoregon.edu/xmlui/handle/1794/4371

Contact: Bob Patterson Bob.Patterson@ci.pendleton.or.us

40) City of Moscow (Idaho) Multimodal Plan (population 24,000)

The City of Moscow has a very good multimodal plan for being a city of only 24,000. It ties transportation, place-making, green streets, transit, bike/pedestrian needs, demographics,

economic development and other interwoven transportation issues. The multimodal center (above) was one of the outcomes of this work.

Link: http://www.ci.moscow.id.us/records/Publications/motm_transportationFactBook-full.pdf

Contact: Alisa Stone astone@ci.moscow.id.us or Kevin Lilly klilly@ci.moscow.id.us

41) Friends of Ferrisburgh (Vermont) for Responsible Growth (population 3,000)

Ferrisburgh was considering a zoning variance to add a large truck stop, convenience store, and fast-food restaurant. A number of citizens banded together as "the Friends of Ferrisburgh for Responsible Growth" to not only stop the development project but to rewrite the zoning code to ensure a walkable city and avoid small town sprawl. The new zoning code is now in place. All new development has to follow "small town" design such as small lots, sidewalks and grid streets and rejects typical auto-oriented development.

Link: http://www.vtsmartgrowth.org/programs/technical-assistance/

Contact: Judy Chaves 802-425-3620

42) Active Transportation Division of Oregon Department of Transportation (statewide)*

Located in ODOT's Transportation Development Division, the Active Transportation Section brings together the Bicycle/Pedestrian Program, the Transportation Enhancement Program (TEP), the Certification Program for Local Agencies (which certifies local units of government in federal program delivery so they can retain more local control of projects), Program and Funding Services (which develops the STIP), the Sustainability Program (which promotes sustainability in projects and planning) and the Economic and Financial Analysis Unit into one unit to better focus on multimodal approaches to transportation. Local project funding and technical assistance to smaller communities come from this unit, which better supports helping smaller communities become more multimodal.

Link: http://www.oregon.gov/ODOT/TD/AT/docs/activetrans_faq_final.pdf

Contact: Darel Capps Darel.F.CAPPS@odot.state.or.us 503-986-3880

*43) Oregon Transportation and Growth Management (TGM) Program**

The Transportation and Growth Management (TGM) Program is a joint program of the Department of Land Conservation and Development (DLCD) and the Oregon Department of Transportation (ODOT). It is designed to integrate transportation planning with the statewide land use planning program. The TGM program is supported by both state and federal funds. This organization is not within the Oregon Department of Transportation but is integrated into the state's land use planning activities. The charter of this group is:

"Oregon's Transportation and Growth Management Program supports community efforts to expand transportation choices for people. By linking land use and transportation planning, TGM works in partnership with local governments to create vibrant, livable places in which people can walk, bike, take transit or drive where they want to go."

TGM has five activities: grants to local communities; consultants who provide transportation-efficient design alternatives to development proposals on a quick turn-around; zoning code development assistance - including a model development code for small communities; outreach, including publicizing information on transportation and land use; and research on land use and multimodalism. Research includes case studies of successfully linking transportation and land use. Grants have focused on funding planning activities to create new local plans that are more focused on transportation and land use links.

There are links between the Department of Transportation and TGM. For example, the Active Transportation Division has links to the "Model Development Code for Small Cities" which provides smaller communities examples of code that they can integrate into their own development code. This code directs growth in more sustainable and multimodal ways than the typical sprawl pattern.

Link: http://www.oregon.gov/LCD/TGM/Pages/modelcode.aspx#Article_1_-_Introduction_and_General_Provisions

Contact: Darel Capps Darel.F.CAPPS@odot.state.or.us 503-986-3880

*44) State of Vermont Planning Grants for Growth Management**

The State of Vermont gives out planning grants to local communities to improve living and working environments and promote efficient growth and development. A key part of this is to provide funding for projects that promote multimodalism. These grants are competitively awarded and scored against criteria including how they address growth and development, including multimodal development. These have been used to provide incentives to plan for better multimodal-supportive land use.

Link:http://www.accd.vermont.gov/strong_communities/opportunities/funding/overview/municipal_planning_grants

Contact: Wendy Tudor wendy.tudor@state.vt.us 802-828-5249

45) City of Essex Junction (Vermont) Multimodal Plan (population 9,300)

Essex Junction developed an integrated land use-transportation plan for the Pearl Street Corridor with the expressed goal of improving the land use/transportation connection within the corridor. This included both roadway and transit improvements as well as land use changes. Also, bus rapid transit and commuter rail integration are included. This effort to promote multimodalism occurred even though the city has only 9300 residents.

Link: http://www.ccmpo.us/library/VT15/Pearl_Street/Pearl_St_Final_20100926.pdf

Contact: Robin Pierce, robin@essexjunction.org 802-878-6950

*46) State of Washington Concurrency Laws (statewide)**

"Concurrency" is a policy and regulatory requirement that requires local governments provide adequate public facilities and services at the time new development occurs. In the State of Washington, concurrency focuses specifically on transportation infrastructure. Concurrency requires government to not just plan but also build public infrastructure to meet population growth. If adequate infrastructure is not available, development cannot occur.

"Adequate" is measured by locally adopted level of service (LOS) standards. LOS is a measure of the quality of service of a transportation mode. For freeways, LOS is measured by the number of vehicles on a roadway and the speed that they are traveling in relation to the posted speed. LOS for highways is measured in grades from "A" to "F". If there are so many cars that speeds are less than the posted speed, then the roadway gets a poor grade.

LOS can be established for modes beyond just automobiles. In Bellingham Washington, for example, there is a LOS established for roadways, sidewalks, bicycle lanes, multi-use trails, transit service, and arterial streets. LOS for all the various infrastructures needs to be met before growth can be approved by local units of government. A survey found that about one-third of small urban areas included some sort of non-motorized travel criteria in their concurrency ordinances.(Puget Sound Regional Council, 2002)

Once those LOS standards are developed and adopted, local governments must review concurrency with every new development project. All new development must fit within overall levels of planned development. As new development projects are created, the need to meet demand from those new residents gets added to the capacity of the various transportation systems. Local units of government must disapprove an individual request if there is not capacity to meet the service needs of the new residents. The system that tracks capacity is often is referred to as a "concurrency management system."

This process allows both government officials and developers to understand where there is excess transportation capacity and to direct growth to those areas while restricting development in areas with existing inadequate transportation systems. In addition, it allows government to intervene to provide incentives for different types of land use development and multimodalism when development will exceed the capacity of the roadway system. (See Bellingham example below) The need to meet concurrency has led to much tighter examination of whether each individual development can be adequately served. It also has allowed government to provide both a carrot and a stick for developers to pursue alternative modes of transportation. In addition, it more clearly articulates the needs of maintaining and expanding the transportation system when and where growth occurs.

Links: http://www.mrsc.org/subjects/planning/curren.aspx

http://www.mrsc.org/subjects/planning/lu/concurrency.aspx

47) City of Bainbridge Island (Washington) Multimodal Concurrency Integration (population 23,000)

The City of Bainbridge Island has used concurrency to integrate non-motorized transportation requirements into its development approval processes. It has created a non-motorized plan and LOS for both roads and for other transportation modes that all new development must conform with. That means that every project is evaluated (in part) based on its impact on transit, bike paths and pedestrian corridors as well on the road system. All transportation systems must be able to support new growth before it can be approved.

Link to the plan: http://www.ci.bainbridge-isl.wa.us/non-motorized_transportation_plan.aspx

Link to a plan review: http://www.ci.bainbridge-isl.wa.us/documents/exec/hex/102810_tawresey_hex_order.pdf

48) Manalapan Township (New Jersey) Smart Growth Planning (population 30,000)

Manalapan Township is part of the New York City commute shed. They have increasing congestion problems as more people move out of New York City to the surrounding area but highways are inadequate to support growing demand. Due to funding problems, funds are not available to substantially expand the freeway system. A rail line runs through the township that is being studied for use for commuter rail. Because of this, they are creating a long-range plan that concentrates development around the potential new transit station in walkable environments rather than in typical low density auto-oriented development that cannot be served with transit.

Link: http://www.ite.org/Membersonly/annualmeeting/2006/AB06H1102.pdf

Contact: Lori J. Duguid Lduguid@mbakercorp.com

*49) City of Winter Haven (Florida) Sidewalk, Pedestrian and Multimodal Infrastructure Access Plan (population 32,000)**

Winter Haven developed a multimodal plan in 2011 to guide its land use development and capital spending. The plan envisions a citywide multimodal network including bicycle facilities, sidewalks and multi-use trails. The plan has been integrated into the City's capital planning and funding has been made available for planned improvements. The plan also includes public transit improvements coordinated with the physical city improvements which will be funded by Polk County Transit. In addition, the City's development plan has also been updated to reflect these investments. Future development will have to conform to the multimodal infrastructure.

Link: http://www.mywinterhaven.com/documents/MultimodalInfrastructureAccessPlan-DraftReport.pdf

Contact: Terrence Nealy tnealy@mywinterhaven.com

50) State of Arizona DOT Planning Assistance for Rural Areas (PARA) Program

The PARA program is sponsored by the Arizona Department of Transportation (ADOT) Multimodal Planning Division and provides federal funds to rural to conduct transportation planning studies. Funds can be used for both roadway and non-motorized transportation modes, including public transportation. Any city or county or tribes outside of Transportation Management Areas are eligible. Funds are restricted to planning. Some examples of the studies done under this program include the "Ak-Chin Indian Community Transit and Non-motorized Transportation Study," the "City of Sierra Vista Safe Bicycle and Pedestrian Routes Plan," "Kachina Village Multimodal Transportation Study," and the "San Xavier District Pedestrian Access and Safety Study." They also fund Small Area Transportation Studies (SATS). Some examples include the City of Benson SATS, the Graham County SATS and the Navajo County Transportation Plan.

Link: http://www.azdot.gov/mpd/systems_planning/pdf/para/PARAs.asp

Contact: Justin Feek jfeek@azdot.gov 602-712-6196

Strategy 4: Financial Incentives for Multimodal Land Use Development

*51) City of Bellingham (Washington) Urban Village Vehicle Trip and Transportation Impact Fee and Multimodal Options to Reduce the Fee (population 84,000)**

State law (RCW 82.02.050-.090) allows cities to impose Transportation Impact Fees (TIF) on new development to help manage transportation demands from growth. This is part of how the city deals with the concurrency requirements imposed by the State (see above). The City of Bellingham has implemented a Transportation Impact Fee (TIF) by City ordinance (BMC 19.06) since 1993. As an example, in 2012, a new single family detached residential house that generates 1.01 p.m. peak vehicle trips would be charged a TIF of $1,931. Funds are then used for improvements to the transportation system based on the approved CIP.

TIF can also be modified to provide incentives to direct development into land use that supports transportation alternatives. If developers can show that transportation alternatives exist that would result in fewer automobile trips during the p.m. peak, their fees are reduced. For example, a project in downtown where a sizable number of individuals would be able to walk to work or take transit, fees were reduced by 50%. (See link below) This provides a financial incentive to locate housing in walkable environments, in mixed use and along transit lines.

Link to descriptions of the program:
http://www.cob.org/documents/pw/transportation/uv-tif-faq-2012.pdf
http://www.cob.org/services/planning/transportation/multi-modal-trac.aspx

Link to the Calculations of the Downtown Project with Reduced Fees:
http://www.cob.org/documents/planning/applications-forms/misc-department-forms/tif-case-study-downtown-50%25-reduction.pdf

The City is broken down into 16 Concurrency Service Areas (CSA). Impacts are calculated for roadways as well as for sidewalks, bicycle lanes, multi-use trails, WTA transit service, and arterial streets for each CSA. This data is compiled and converted into Person Trips Available (PTA) for each CSA so impacts of development can be calculated for each part of the city. Data is updated annually. This data is used to evaluate where there are opportunities for new growth that can be supported by the existing and planned transportation system. Every project and the overall development plan are measured against concurrency within its CSA. In this way, the local impacts of development on all modes are understood.

Link: http://www.cob.org/documents/pw/transportation/2013-trac.pdf

Contact: Chris Comeau, (360) 778-7946 ccomeau@cob.org
Brent Baldwin, Development Manager (360) 778-7940 bbaldwin@cob.org

52) City of Kissimmee (Florida) Multimodal Transportation District (population 55,000)

Florida requires concurrency, which means that infrastructure needed to build new development must be in place before that development occurs, including roadway capacity. Development must also pay for the cost of providing new infrastructure. Within the Multimodal District however, these requirements are waived if developers develop in walkable, higher density developments and meet multimodal development criteria. Buildings must be oriented towards sidewalks, parking must be located behind buildings and bicycle parking must be available for all locations. Transit shelters must be accommodated. Mixed use must be included. Because these design features support walkable environments impacts fees are waived.

Link: http://www.redevelopvinestreet.com/assets/docs/Kissimmee_MMTD_Brochure.pdf

Strategy 5: Alternative Vehicles

53) City of Lyons (Colorado) Golf Carts on City Streets (population 1,500)

The City of Lyons allows the operation of golf carts on city streets. Its ordinance does not allow ATV's and does not cover other low speed electric vehicles, which are already allowed on state highways and other streets, subject to certain regulations and limitations. Golf carts are only allowed where cars are allowed and drivers must be licensed. Vehicles must follow regular traffic laws. The ordinance includes both electric and gas powered golf carts.

Link:http://www.townoflyons.com/index.php?option=com_content&view=article&id=267&Itemid=350

Contact: Kevin Parker kparker@bouldercounty.org

54) State of Florida Law Allowing the Operations of Low Speed Vehicles

The Florida Legislature has passed a law which permits municipalities to allow low speed vehicles on their streets. The definition of these vehicles (from Florida Statutes 320.1) provides for four wheeled vehicles with top speeds greater than 20 mph but not more than 25 mph, including electric vehicles. Vehicles are restricted to roads with posted speeds of 35 mph or less. They must be equipped with headlights, stoplights, turn signals, taillights, reflectors, parking brakes, rearview mirrors, windshields, seat belts, and vehicle identification numbers. They have to be insured and operators must have a valid driver's license. Local units (cities or counties) can determine which roadways or paths can be used by the vehicles. Vehicles can only operate from sunrise to sunset unless the local unit of government specifies something different. Note that there are several cities in Florida who have done this. Pine Island and Windermere are profiled below.

55) Windermere (Florida) Golf Carts on City Streets (population 1,800)

Windermere has voted to allow golf carts on city streets, including the downtown. This required approval from Lee County, which they have given. Carts are not allowed on bike paths or shared paths. Drivers must have driver's licenses and carts can be operated only during daylight hours. Also, carts are restricted from higher speed roads.

Link: http://www.town.windermere.fl.us/pView.aspx?id=23851&catid=484

Contact Robert Smith: (407) 876-2563 rsmith@town.windermere.fl.us

56) City of Peachtree (Georgia) Multi-use Paths and Golf Cart Use (Population 37,000)

Florida state law allows golf carts on city streets with local approval. In Peachtree, the city also allows senior citizens, disabled citizens, teens, and others to drive carts on the city's path system without a driver's license. Peachtree has a 90-mile network of multi-use paths (for pedestrians, cyclists and golf carts) that link residential neighborhoods to commercial areas, parks, schools, and offices. Golf carts do need to be licensed through the city.

This alternative has been adopted by many residents. Studies indicate the paths may reduce Peachtree City's auto trips by over 1 million miles per year. The City is currently updating its Path Master Plan to incorporate areas not currently accessible (including a 2,200-acre industrial park to allow for more job commuting).

Links: www.peachtree-city.org
http://www.spacesyntax.tudelft.nl//media/longpapers2/rcdalton.pdf (research paper on the path system)

Contact: Mark Caspar mcaspar@peachtree-city.org

57) City of Laporte (Indiana) Considers but does not Approve Golf Cart on City Streets

The City of Laporte considered legalizing golf carts on city streets as a way of providing alternatives for seniors who can or should no longer operate automobiles. Golf carts could be

driven only on city streets and alleys from 6 a.m. to 10 p.m. from April 1 through Nov. 1. Vehicles would have to be equipped with working headlights and taillights. Drivers would have to have valid driver's licenses. This was not approved however. It is significant in that Indiana has a substantial winter yet still has demand for this kind of transportation.

58) Bowling Green (Kentucky) Golf Carts on City Streets

The Kentucky State Legislature authorized the use of golf carts on city streets, subject to approval by local units of government, in 2008. The City of Bowling Green approved the operations of golf carts on city streets in 2011. Golf carts are only allowed on streets with speed limits 35 mph or less. The golf cart must pass an inspection and be insured. Drivers must be licensed. Carts can be driven only during daylight hours. The vehicle must have headlights, tail lights, turn signals, reflectors, mirrors and a windshield.

Link: http://www.bgky.org/assets/files/iK52zRsT.pdf

Contact: Steve Hunter 270-842-1953

Other Strategies

59) City of Dubuque (Iowa) ITS Data Collection to Improve Transit (population 59,000)

Transportation planners always face difficulty in deeply understanding the needs of the traveling public. In the past, planners have had to rely on surveys and direct observation to understand where people want to travel when. But there has been a revolution in data collection and data analysis over the last ten years with the rise of the smart phone and the mobile internet. The Dubuque Regional Sustainable Transportation Initiative (DRSTI) is an initiative to use new tools to gather data about how the public travels and then leverage that for new projects.

Three key components are included in the initiative:

- Implementation of a Smart City Intelligent Transport Solution (Smarter City ITS) to collect and analyze real-time transportation behavior data using cell-phones. More than ten thousand residents will participate over a two year period. IBM is the private sector partner in this effort.
- This data will be integrated into transportation and land use planning and investments.
- This data will also support the redesign of the region's public transit system.

There are two other pieces of this initiative. A Complete Streets pilot project in downtown Dubuque is being developed based on data from the Smarter City ITS. A Southwest Arterial is also being completed, with the design being based on the Smarter City ITS data.

Link: http://www.cityofdubuque.org/DocumentCenter/Home/View/1718

Contact: Don Voight dvogt@cityofdubuque.org

60) ConnectOregon Non-highway Grants Program (state-wide)

In 2005, the Oregon Legislature created the Multimodal Transportation Fund to invest in air, marine, rail, and public transit infrastructure improvements. The Fund is part of the ConnectOregon program; providing grants and loans to non-highway transportation projects that promote economic development in Oregon. The legislature authorized issuance of $100 million in lottery-backed revenue bonds to fund the program in each of the 2005-07, 2007-09, and 2009-11 biennia. An additional $40 million was authorized in 2011 for the 2011-13 biennia. Funding has gone primarily to rail, marine and aviation improvements but some money has gone to transit improvements. Some examples of projects that have been funded through this source include the Lowell Extension for the Portland Streetcar, the City of Sandy Transit Operations Facility and the Community Connections of Northeast Oregon: Multimodal Transit Facility and Consolidation.

Link: http://www.oregon.gov/ODOT/TD/TP/pages/connector.aspx

Contact: Carol Olsen Carol.A.OLSEN@odot.state.or.us

61) Counties of Bastrop, Caldwell, Hays, Travis, and Williamson (Texas) On-line Carpool/Vanpool Matching, Transit Planning and Route Planning

The myCommuteSolutions site (www.myCommuteSolutions.com) does carpool/vanpool matching, transit route planning and bike/pedestrian route mapping. It also allows users to get metrics on their travel such as fuel saved, calories burned and pollution reduced. The various transit organizations and counties promote this tool to the public.

Link: www.myCommuteSolutions.com

62) Community Action Program of Belknap (population 60,000)-Merrimack (100,000) Counties, Inc. (New Hampshire) Volunteer Driver Program

Volunteer drivers provide door-to-door service as well as feeder service to public transportation services and routes in the region including to the Rural Transportation System, Concord Area Transit and Winnipesaukee Transit. Volunteers are reimbursed on a per-mile basis, which reduces their transportation costs while providing mobility in areas where regular transit does not work efficiently.

Link: http://www.bm-cap.org/vdp.htm

Contact: Susan Jutras 603-224-8043 sjutras@bm-cap.org

63) MapMyFitness

MapMyFitness (including the MapMyRun, MapMyRide and MapMyWalk). These tools integrate with Google Maps and Facebook to allow individuals to plot walking and biking trips. Since this is based on Google Maps, it us usable throughout the United States. Several rural areas promoting multimodal solutions promote this tool.

Link: http://www.mapmyride.com

*64) City of Wilsonville Zimride Paid Shared Ride/On-Line Reservation Program (population 20,000)**

Zimride is an Internet-based shared ride matching system. Zimride grew out of the posting board that many colleges had where drivers would look for passengers who would share the ride. Zimride moved the posting board to the Internet. Students post both when and where they were going as well as how much they expected to have the passenger kick in for the ride. Students looking for rides can post when and where they want to go. An additional feature is that Zimride is integrated with Facebook so both the driver and the passenger can see information about each other before accepting a trip together. This allows both passenger and driver some knowledge about the other person before accepting the trip together.

Wilsonville is an exurban community about 20 miles outside of Portland. As part of their transportation and transit plans, they have joined Zimride. Residents can post trips that they are taking and how much they would like to be paid. Riders can also post when and where they want to go. Trips can be one-time or on-going.

An explanation of how it works:
http://blog.oregonlive.com/wilsonville/2011/04/the_city_of_wilsonville_and_sm.html

A link to the app itself:
http://zimride.ridesmart.com/

*65) Lyft/Sidcar**

Although not currently operating in rural or small urban areas, both of these programs could be adapted to small urban or rural areas. Both Lyft and Sidecar are ride-matching apps that instantly connect people who need rides with local, vetted drivers who are available and willing to give rides. The rider logs into the app and says where they are. The app identifies drivers who are in the area and selects the closest available driver. The driver provides the ride. The rider pays the driver. In this way, the driver functions as a taxi except that the driver is not employee of Lyft or Sidecar. The driver is just an independent person with a car. The software just matches the person with the car with the person needing a trip.

Link to an article on how this works:http://www.buzzfeed.com/justinesharrock/life-behind-the-wheel-in-the-new-rideshare-economy

Chapter 4: Case Studies

Based on the list of innovative activities, staff from the Minnesota Department of Transportation and partner agency requested case studies on six activities. These case studies are outlined below.

Case Study 1: Olympia Washington Sidewalk Retrofit

Despite being founded in the 1850's, the City of Olympia Washington really did not start to grow until the 1920's. It also never had a trolley or streetcar system to organize land use into a walkable environment. Also, the city never imposed requirements to develop sidewalks. The result was that most of the city was developed without sidewalks.

In the 1980's, there was a growing concern about the lack of sidewalks from several different groups. Parents were concerned about the difficulty that children had in walking to school. Students had no choice but to walk in the streets due to the lack of sidewalks. Because of this, in 1990, the City funded a "School Walking Route Program" to attempt to designate certain streets for walking to school. This project was considered a failure because it wasn't possible to designate just a few streets for walking given the dispersed pattern of where students lived.

At the same time, there was a growing desire to promote walking and biking, driven by people who wanted to walk for recreation as well as environmentalists who wanted multimodal alternatives. These interests, along with parents, were brought together in 1993 when the City established its Bicycle and Pedestrian Advisory Committee. In 1995, the City adopted its "Comprehensive Plan Vision: A Walkable, Pedestrian-Friendly Community" based on work by this group. In 1996, the City adopted new zoning and development standards, which included requiring sidewalks, planter strips and streetlights for new development. But this didn't resolve problems in already developed areas. (Messmer & Lazar, 2006)

From 1997 to 2003, the City's Bicycle and Pedestrian Advisory Committee developed a field inventory of sidewalks and a ranking of the needs for sidewalks. This work identified 255 segments without sidewalks and $53 million needed to retrofit sidewalks in these locations. Funding available from the City for sidewalk development was $150,000 a year at the time, which meant that it would take 350 years to retrofit sidewalks in the City. (Bicycle and Pedestrian Advisory Committee, Public Works Department Staff, & Stimson, 2003)

At the same time, the Parks and Recreation Advisory Committee was working on an update to the City's parks plan. As part of the planning work, a survey was done of residents to understand recreational needs. The number one recreation activity identified was walking. The park plan envisioned new parkland and open space with new walking paths as well as improvements to existing parks. The plan cost about $100 million dollars but there was no funding from existing sources. (City of Olympia, 2003)

Figure 1: Olympia Parks and Sidewalks Sign

The City appointed an advisory committee to explore funding options for the park plan. The committee was going to conduct a poll of residents. The bike and pedestrian advocates argued that sidewalks and parks were one and the same issue – that walking on a park trail and walking to a park trail should be thought of as the same integrated activity. Once they were able to make this linkage, they were able to get questions about funding sidewalks on the survey. The survey found that 49% of residents supported a 2% increase in the local utility tax for parks but that 57% of residents supported a 3% increase in taxes for both parks and sidewalks. Not only were sidewalks desirable but they were a necessary part of the package to get parks funding approved. The two initiatives, funding parks and funding sidewalks, became linked. Sidewalks were not just about transportation but they were placed in a much larger context in their role of providing recreation and safe routes for children. The lawn sign design above reflects this merger of interests. (Messmer & Lazar, 2006)

A campaign committee called "Olympians for a Livable Community: Parks, Open Space, and Sidewalks (OLC)" was formed. It included members of the city council, the Parks Advisory Committee, the Bicycle and Pedestrian Advisory Committee, and other community groups. The campaign emphasized three key points: "A Legacy of Natural Treasures," "A Livable Community" and "Health and Safety." (Messmer & Lazar, 2006) In September 2004, Olympia voters approved a 3 percent tax on electricity, natural gas and telephone utilities, with one third of the proceeds dedicated to sidewalk construction and the balance to parks and open space. The measure increased sidewalk funding from $150,000 to $1 million per year. (City of Olympia - Public Works Department, 2013)

The Parks & Pathways program plans for construction of over 13.3 miles of new sidewalks over a 20-year period. From 2005 to 2010, the City completed 9 sidewalk projects. Also, as sidewalks are constructed, they are branded with the logo of the program. This substantially increased walking.

Conclusion: Connecting sidewalks with other recreational activities was critical in getting community buy-in to provide funding to increase the number of sidewalks. This linkage provided the opportunity to increase multimodalism in this community. In Minnesota, important opportunities exist to link multimodalism and recreation. The recreation community can be a strong ally in promoting the development of trails as well as sidewalks and walkable environments. Parents and school-based activities may be an untapped source of advocacy and support for multimodal improvements. (City of Olympia, 2013)

Case Study 2: North Dakota Bus Service

There are four basic models of rural and intercity bus service:

- National bus service, which primarily connects major metropolitan areas. Greyhound is the only nation-wide provider but other companies such as Peter Pan, Megabus, Boltbus, CoachUSA, Jefferson Lines and others have provided this kind of service in large regions of the country.
- Regional bus service, which provides connections to smaller towns in an area. In Minnesota, Jefferson Lines is an example of this kind of service.
- Localized bus service, which is typically one local provider in one city connecting to another city. Oftentimes this is when a local transit service runs a local regular route between several small cities. An example is the Arrowhead Transit service that runs from Ely to Virginia and Hibbing.
- Specialized bus service, which is transit going among several cities serving primarily on one population group. For example, certain Indian reservations have transit service connecting different towns on the reservation. Likewise, veteran's services often have transit services between several cities.

One model for rural transit services is North Dakota. North Dakota had a population of 699,628 in 2012. 39% of the population is concentrated in four cities: Fargo, with a population of 109,779; Bismarck, with a population of 64,751; Grand Forks, with a population of 53,456; and Minot, with a population of 43,746. The balance of two-thirds of the population is in rural and small urban areas. It ranks 47th among the 50 states in population density.

North Dakota is also experiencing something very unusual for production areas. Typically production areas have very stable economies, with slowly declining populations. Demographics are typically skewed to an older population as younger people leave to find employment. But in Western North Dakota, new technology has created an oil boom. Most of Western North Dakota is part of the Bakken Formation, an oil-bearing geological formation.

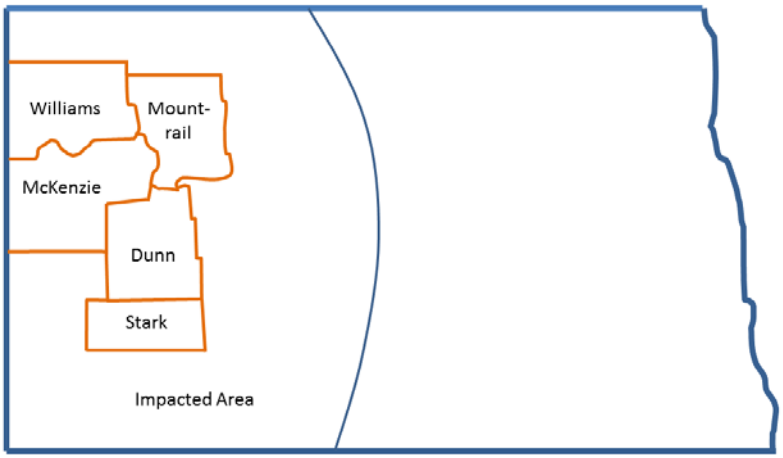

Figure 3: Oil Production Counties and Impacted Areas

Due to new oil shale fracking technology, the area has seen rapid growth and increasing population density over the last five years that is unusual for production areas.

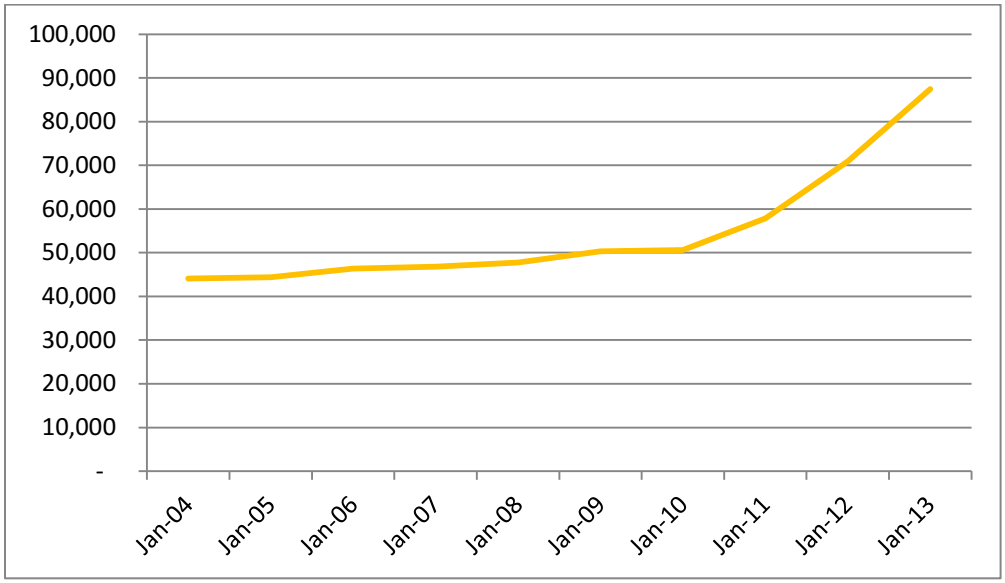

Figure 4: Population of Bakken Oil Production Counties
(Bureau of Labor Statistics, 2004 - 2013)

The dramatic increase in population has been driven by the rapid increase in wages.

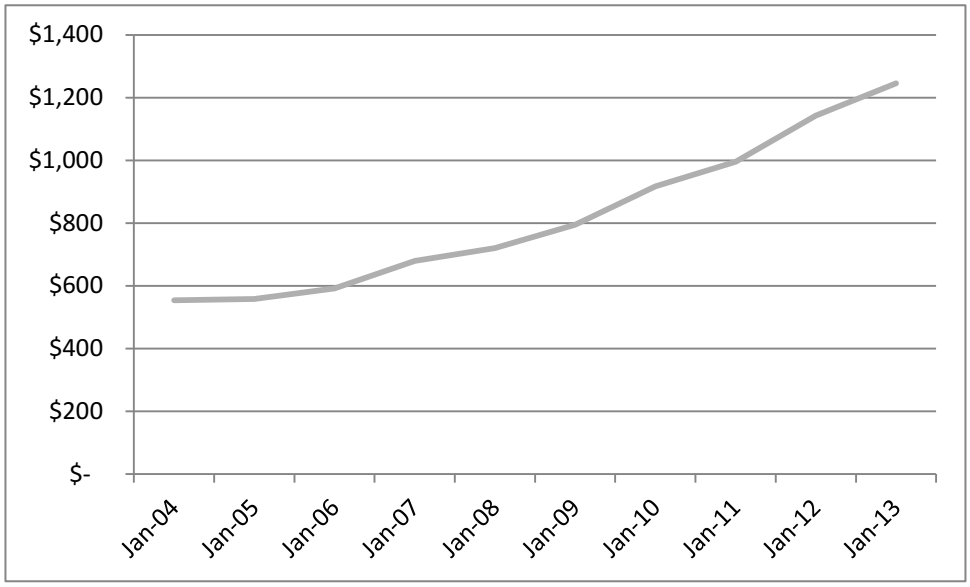

Figure 5: Weekly Wages of Bakken Counties
(U.S. Bureau of Labor Statistics, 2001 - 2013)

North Dakota has all four kinds of rural and intercity bus service:

- It has national routes connecting to Minneapolis. These include Rimrock Stages on I-94 and Jefferson Lines on Highway 2.
- It also has two regional services primarily serving the Bakken-impacted area, the Airport Express Shuttle and the North Dakota Shuttle.
- It has one specialized service, Standing Rock Transit, which serves Standing Rock Indian Reservation. Standing Rock is in both North and South Dakota and the service provides intercity service to the whole reservation.
- It also has a network of lower frequency local bus routes which connect small towns with larger regional centers. This network extends across most of the state.

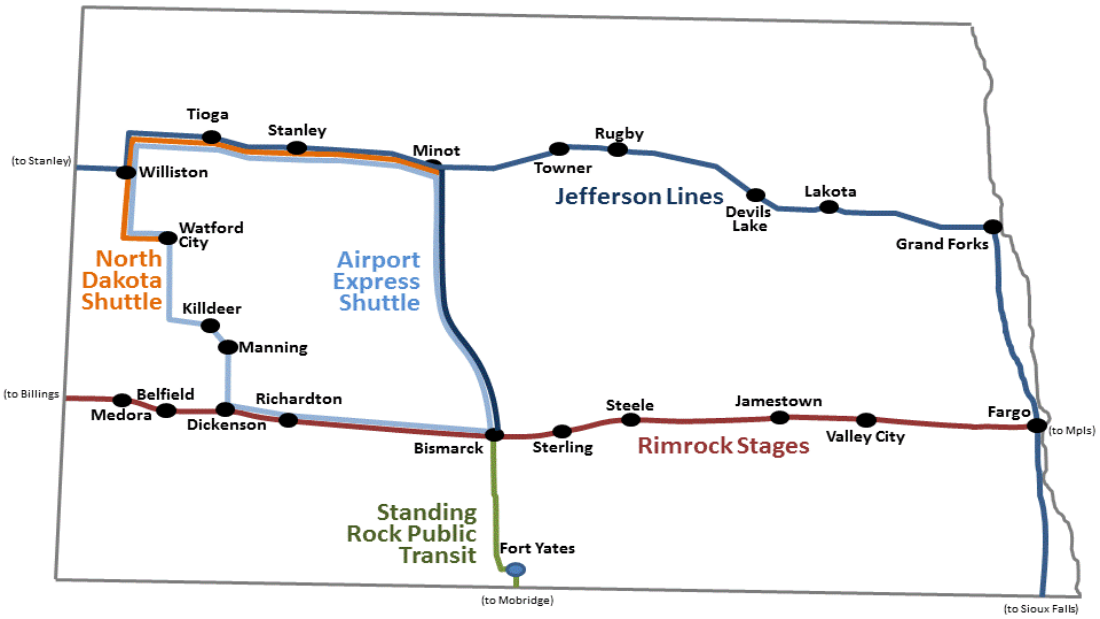

Figure 6: National, Regional and Specialized Intercity Bus Service

National/Regional Transit Providers in North Dakota

Rimrock Stages and Jefferson Lines provide traditional intercity bus service connecting to major metropolitan areas. The Airport Express Service and the North Dakota Shuttle are regional services primarily meeting the needs of the oil industry in western North Dakota.

Jefferson Lines is a national transit provider, with multi-state service connecting major metropolitan areas. Each stops once a day in each direction. In North Dakota, its route runs from Fargo to Williston via Grand Forks and Minot, along Interstate 29 and Highway 2. The cost for a one-way trip from Williston to Fargo is $53. (Jefferson Lines, 2013) The State of North Dakota uses a portion of its 5311(f) funds to support the Jefferson Lines route from Williston to Fargo and for connections to Sioux Falls and Minneapolis. In 2012, the State provided $390,000 to Jefferson Lines to support its routes in Minnesota and to connect those routes to large urban areas.

Rimrock Stages provides transit in Montana and North Dakota. In North Dakota, they run along I-94 from Fargo to the western border of North Dakota. (Rimrock Trailways, 2013) Typically they have provided three trips a day but this has been variable in 2013 as they were temporarily shut down by the Federal Motor Carrier Safety Administration for "imminently hazardous" safety violations. (Falstad, 2013)

Two private regional services provide transit in the area impacted by the Bakken oil boom. The Airport Express Shuttle makes three daily trips from Dickinson and Williston to the Bismarck and Minot airports. Costs are $100 for the first passenger and $75 for each additional passenger for Bismarck to Dickenson. It also will deviate to make local pickup along the routes. It does not receive any subsidy. (Airport Express Shuttle, 2013)

The North Dakota Shuttle provides shuttle service to Williston, Tioga, Stanley, Minot, Watford City and Dickinson. Most days, there are three trips per day. Costs are $60 a one-way trip from Minot to Williston. They will also deviate for a fee. It does not receive any subsidy. (North Dakota Shuttle, 2013)

Specialized Service in North Dakota

The Standing Rock Indian Reservation is both in North and South Dakota. It includes both Sioux County in North Dakota and Corson County in South Dakota and starts about 30 miles south of Bismarck and runs along the northern border of South Dakota.

The combined population of both counties is 8,300 as of 2012. Both counties have extremely low incomes. Sioux County is the sixth-poorest county in the United States while Corson is the seventh-poorest. 42.3% of Sioux County and 38.8% of Corson County live below the poverty level. (United States Census Bureau, 2012)

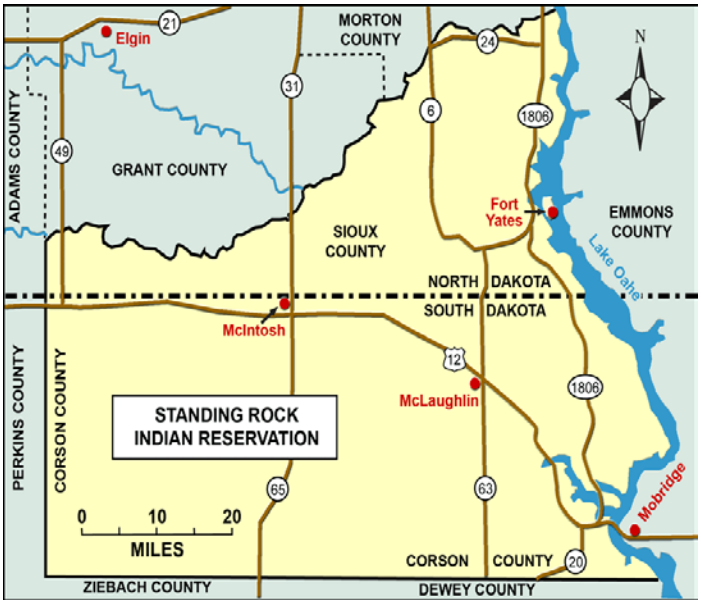

Figure 7: Standing Rock Indian Reservation (State of North Dakota, 2013a)

Sitting Bull College, the Standing Rock Tribe, Prairie Knights Casino, Grand River Casino and the Veteran's Administration have partnered to put together a transit system to serve the reservation. Currently, the transit program provides inter-city service to twelve communities and two casinos. The casinos are the major employers on the reservation. The transit program also provides twice monthly trips to both the North Dakota and South Dakota Veteran's Hospitals.

They operate eight routes:

- Route # 1: Mobridge, Grand River Casino (GRC), Wakpala, Kenel, Fort Yates, Prairie Knights Casino and Bismarck.

- Route # 2: Bullhead, Little Eagle, Bear Soldier, McLaughlin, Fort Yates, Prairie Knights Casino and Bismarck.
- Route # 3: Porcupine, Selfridge, Fort Yates, Prairie Knights Casino and Bismarck.
- Route # 4: Fort Yates, Bismarck, Mandan, Cannonball, Prairie Knights Casino
- Route # 5: Fort Yates, PKC, Cannonball, Solen and Bismarck.
- Route # 6: Bismarck, Prairie Knights Casino, Fort Yates, McLaughlin, Mobridge, Selby, Gettysburg, Agar, Onida, Pierre, Sioux Falls and Rapid City.
- Route # 7: Fort Yates Schools to Sitting Bull College Circulator
- Route # 10: Fort Meade Veterans Hospital (twice a month)
- Route # 11: Fargo Veterans Hospital (twice a month)
- Route # 12: Bullhead, Kenel, Little Eagle, Wakpala, Bear Soldier, Mobridge, Grand River Casino, McLaughlin and Mobridge.

5311(f) funds are also received from the State of North Dakota. In 2012, the State provided $405,000 to Standing Rock Transit from 5311(f). Local match comes from Sitting Bull College, the Standing Rock Tribe, Prairie Knights Casino, Grand River Casino and the Veteran's Administration.

Localized Service in North Dakota

The State of North Dakota also has an extensive local regular route system which connects small towns to larger regional centers. In North Dakota, there are cities with populations larger than 10,000 about two hours apart along the two major highways, Interstate 94 to the south and Highway 2 to the north. But there are also regional centers that have a population of 1,000 – 5,000 which are also key regional centers for these smaller towns and rural areas.

This service is provided by a network of seven regional providers and 14 counties. Sioux County is served by Standing Rock Transit, a regional provider. Service providers and regions are as follows:

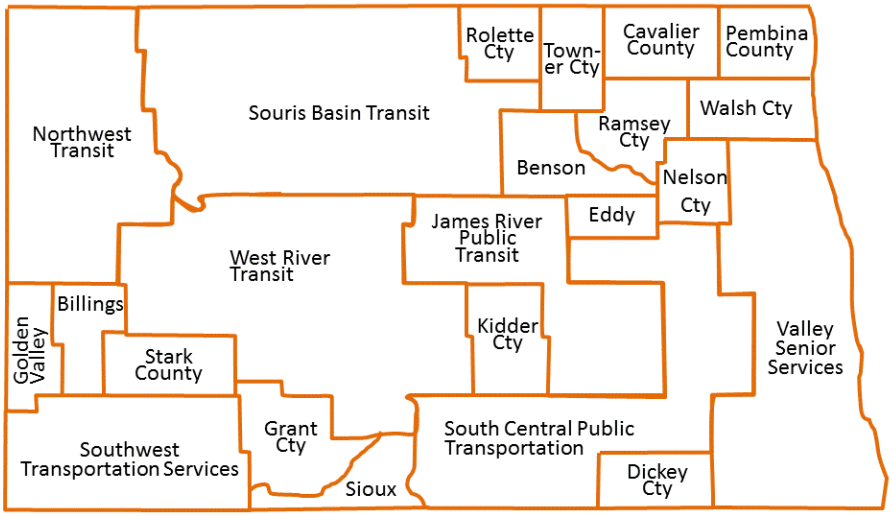

Figure 8: North Dakota Local Transit Providers

Many of the intercity routes operate a couple times a week, although routes from larger cities (population of 500+) often run more frequently. Despite this frequency, routes often overlap so some riders have multiple options in any week to go to major cities. Also, providers have routes that go to different major cities. For example, in Foster County, South Central Adult Services provides the following options to any rider in the county:

- Bismarck – 3rd Wednesday each month
- Fargo – 1st Wednesday and 3rd Tuesday each month
- Jamestown - 1st, 2nd & 4th Tuesday and 4th Wednesday each month
- Foster County to Carrington - 2nd Wednesday and 1st, 3rd, and 4th Thursday each month
- Foster County to New Rockford – Monday, on request

The State has worked with local providers to coordinate these schedules so citizens have more opportunities and are better informed about the transit activities of all providers who may be in the area. The local intercity bus routes and regional centers in North Dakota are as follows:

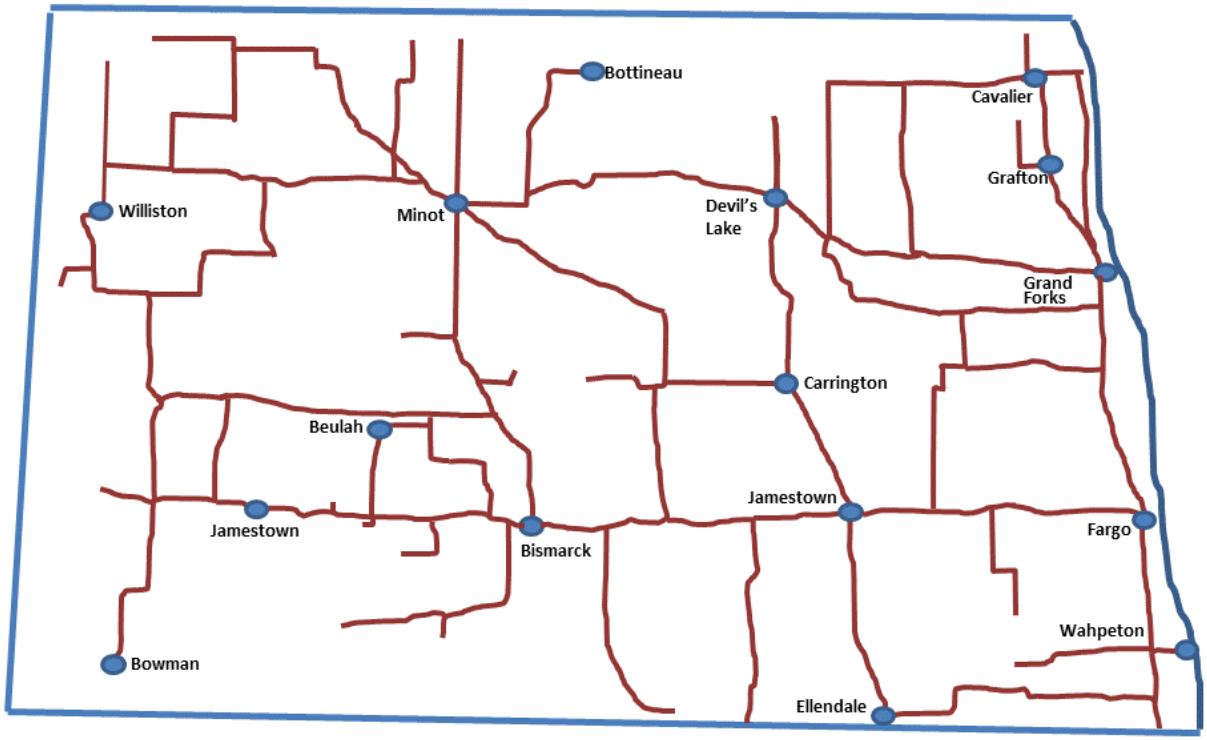

Figure 9: Local Intercity Bus Routes and Regional Centers

The State provides federal 5311 funds to support these local programs. The local programs are required to match the federal funds 50% with local funds. The allocation from the State for FFY 2012 was:

	State Funds
Benson County Transportation	$ 38,300
Cando Senior Citizens	$ 32,000
Cavalier Co. Senior Meals & Services	$ 27,500
Dickey County Senior Citizens	$ 5,000
Eldercare	$ 358,000
Golden Valley Co. Council on Aging	$ 33,700
James River Senior Citizens	$ 284,657
Kenmare Wheels and Meals	$ 27,035
Kidder County Senior Services	$ 42,685
Nelson County Council on Aging	$ 48,280
Pembina County Meals and Transportation	$ 56,460
Senior Meals & Services/D.L. Transit	$ 69,782
Souris Basin Transportation Board	$ 486,810
South Central Adult Services	$ 528,175
Southwest Transportation Services	$ 28,000
Valley Senior Commission	$ 155,922
Walsh County Transportation Program	$ 60,000
West River Transit	$ 221,725
Northwest Transit	$ 302,007

The state of North Dakota supports public transit by providing state funds to local transit agencies. The State charges $3 per license plate to for transit services, as well as using state general funds for transit. The distribution of state aid funding is prescribed by state law (North Dakota 39-04.2.-04). Each of the state's 53 counties receives 4/10 of 1% of program funds plus $1.50 per capita. The State increases or decreases the per capita amount in order to distribute all available funds. If there are multiple transportation service providers in a county, the base amount is divided equally among the providers, and the per capita amount is distributed based upon the percentage of elderly and handicapped rides provided by each of the county's service providers. (State of North Dakota, 2011) For the 2013 – 2015 biennium, the State appropriated $8.9 M. (State of North Dakota, 2013b)

North Dakota state law does not allow direct levy for transit purposes but it does allow up to two mills to support senior programs which is used for transit. Local revenues vary by service provider and county.

All programs also charge fares. The rates used by several programs are outlined in Appendix A.

Conclusion: Despite being 47th in population density, North Dakota has a robust transit system in its rural areas. It has done so by promoting a number of strategies. It has concentrated its services along key travel corridors. There is overlapping service among various providers in these corridors with coordinated schedules, giving riders multiple opportunities for trips in those corridors in any given week. Service is provided both to local centers and larger regional centers,

even if those regional centers are outside the service area of the transit provider. This provides travelers access to a wider range of goods and services.

Rural transit providers in Minnesota could look at concentrating more of their trips in the state's interregional corridors, similar to North Dakota. This would provide more opportunities to make trips and also to obtain a wider range of services. They could also increase coordination in their schedules, providing more opportunities for transit travel in these corridors.

Case Study 3: Mesa Reimbursement for Car Trips

The City of Mesa was looking for less expensive alternatives than traditional paratransit for persons who were either elderly or had disabilities that prevented them from driving. To this end, they contracted with East Valley Senior Services to develop and provide an alternative.

East Valley Senior Services (later East Valley Adult Services) is a non-profit organization that began in 1979 to provide needed services for persons over the age of 50. The organization operates three active adult centers, one at Apache Junction, one in North Mesa and one in the Red Mountain area. These facilities provide senior activities, food and nutrition services, caregiver support, health and wellness programs as well as a physical location for other programs that support seniors. (East Valley Adult Services, 2013)

At the time, they were providing some transportation programs but wanted other alternatives that would put more control in the hands of the person needing services. The director, Dan Taylor, attended a conference with a presentation about the City of Riverside's TRIP program. The City of Riverside partners with the Independent Living Partnership to provide a program called TRIP which provides mileage reimbursement to volunteer drivers of persons who are unable to drive or use public transportation. In 1999, East Valley began the "Ride Choice" program based on Riverside's approach. It provided a per-mile reimbursement for volunteers who would drive registered clients. Clients had to be over the age of 65 or have a current disability certification and not be able to drive or use regular route public transit. Reimbursement was available up to 30 miles per trip and 300 miles per month costing a little more than $100 a month maximum at the beginning of the program or $150 per month maximum in 2012. Overall costs including administration were about $4 per trip. Relatives who lived with the passenger were not eligible for reimbursement. Reimbursements were clearly labeled for mileage only, as any sort of payment could affect a driver's insurance. The passenger chose their own driver without intervention from East Valley. Reimbursements were made directly to passengers, who were required to pass along the reimbursement to their volunteer drivers. In the beginning, there were limits on the types of trips that would be reimbursed but that proved to be unmanageable. The programs operated out of the three senior centers so staff was very knowledgeable about individual clients. (Taylor, 2013)

The program was quite successful, with over 200 clients in 2006. There was substantial interest in expanding this program to other parts of the region. (Taylor, 2013) Because of this, the City rolled the Ride Choice program into a larger contract for regular route service and paratransit as well as two other paratransit alternatives, a dialysis transportation reimbursement program and a

subsidized taxicab program. The City of Mesa gave the contract for implementing the program to Regional Public Transportation Authority, which manages Valley Metro, the region's transit entity. Valley Metro contracted with Veolia Transportation Services, a private for-profit corporation headquartered in Paris, to operate transit service. It was the intention to expand the program to other cities but with the recession, this did not occur. Veolia has the contract from 2006 until 2013, when it was given to First Transit. (Holstege, 2013) The 2013 Ride Choice contract was planned to be for $313,000 (Valley Metro, 2013) but the program was terminated amongst rumors of inappropriate reimbursements. The City continues with its taxicab reimbursement program however. Residents age 65 or over and persons with a current disability certification can receive $100 in cab vouchers for $25. Valley Transit has adopted a new fare card. Riders receive their vouchers on their fare cards and cabs must accept the fare cards to participate. It is expected that the issue of inappropriate reimbursements will decline with the new fare media (First Transit Staff, 2013) The Riverside TRIP Program that Mesa modeled itself on continues.

Conclusion: The City of Mesa had an option for qualified individuals to recruit their own volunteer drivers and have those drivers reimbursed. When this was administered by a small non-profit for its clients, the program was successful. But when they tried to scale up this program, it was not successful. It became too difficult to verify that funds were being used as intended when the intimacy of one non-profit and its clients was lost. Because of this, the program was replaced with one that uses electronic fare media in taxi cabs. Were the Department of Transportation or its partners to experiment with this type of program, it would need to give careful though to the issues of verification of services.

Case Study 4: State of Oregon "Main Street as Highway" Guidance

Unlike Minnesota, the State of Oregon has a state-wide planning agency, called the Department of Land Conservation and Development (DLCD). It was created in 1973 and administers a statewide land use planning program. The goal of the DLCD is to "protect farm and forest lands, conserve natural resources, provide for orderly and efficient development and coordinate among local governments." (Oregon Transportation and Growth Management Program, 2013) In many ways, it is analogous to the land use planning activities done by the Metropolitan Council in Minnesota except its jurisdiction is state-wide rather than regional. A seven-member appointed board known as the Land Conservation and Development Commission (LCDC) sets policy for the DLCD, similar to the Metropolitan Council.

The DLCD is tasked with creating a state-wide comprehensive plan. Local units of government must create comprehensive plans that conform to the state-wide plan. Again, this process is very similar to the regional comprehensive plan that the Metropolitan Council creates that Twin Cities local units of government must be in conformance with. As of 1986, all cities and counties in Oregon adopted comprehensive plans in conformance with the state plan. Currently the state plan has 19 planning goals that deal with land use, development, housing, transportation, and conservation of natural resources. DLCD periodically reviews city and county plans for conformance with the state plan. It also provides grants focused on promoting the 19 statewide planning goals to provide an incentive to promote state goals.

DLCD also coordinates with Oregon state agencies. It currently has State Agency Coordination Agreements to coordinate planning with 25 state agencies. This means that both state and local agencies coordinate their planning with the DLCD.

The Oregon Transportation and Growth Management Program (TGM) was created in 1993 as a partnership between the Department of Land Conservation and Development (DLCD) and the Oregon Department of Transportation (ODOT) through a State Agency Coordination Agreement. This program was created due to previous work that the two state departments had been doing around the connection between land use and transportation. The mission statement of the TGM is:

> "The Oregon Transportation and Growth Management Program (TGM) supports community efforts to expand transportation choices for people. By linking land use and transportation planning, TGM works in partnership with local governments to create vibrant, livable places in which people can walk, bike, take transit or drive where they want to go." (Oregon Transportation and Growth Management Program, 2013)

As noted, the structure of the State of Oregon is such that land use planning and transportation are specifically linked. This link between land use and transportation can be seen in the TGM program goals:

1. "Help local governments plan for well-connected, multimodal transportation systems that serve land use objectives and meet the requirements and intentions of the Transportation Planning Rule. (The Oregon State Administrative Rules that govern transportation planning in the State.)
2. Help local governments plan for sustainable and efficient transportation land use, and development patterns that meet transportation needs and promote economic vitality.
3. Strengthen the capacity of local governments to manage urban growth and to translate plans into how communities get built.
4. Minimize the cost of transportation facilities and other infrastructure recognizing the very limited funding available for system completion and expansion for all modes, and maximize the return on investment through good planning.
5. Help local governments contribute to meeting transportation - related statewide greenhouse gas emission reduction goals.
6. Educate decision makers and the public on transportation and land use best practices that provide modal choice and enhance urban livability.
7. Partner with and support state agencies and programs where their actions advance TGM goals and objectives." (Oregon Transportation and Growth Management Program, 2013)

TGM has five activities: It provides grants to local communities, primarily funding planning activities to create new local plans that are more focused on transportation and land use links. It has consultants who provide transportation-efficient design alternatives on a quick turn-around primarily in response to developer proposals. It provides zoning code development assistance, including a model development code for small communities. It provides outreach to educate citizens, including publicizing information on transportation and land use. Last, it does research on land use and multimodalism. Research focuses on case studies of successfully linking transportation and land use. (Oregon Transportation and Growth Management Program, 2013)

Oregon also has had a number of non-profit organizations that promote multimodalism and the link between land use and transportation. Probably the best known today is the 1000 Friends of Oregon but there have been others. The Oregon Downtown Development Association (ODDA) was established in 1982 to promote the principles of the National Main Street Program. Its mission was to "help communities revitalize, develop and promote their downtowns and neighborhood business districts as economic, historic, civic and cultural centers." (Connectipedia, 2013) It later merged with Livable Oregon, Inc., which had a larger agenda of advancing smart growth policies and practices.

ODDA provided tools, training and technical assistance to communities working on downtown revitalization. For example, it was an early advocate for business improvement districts and economic development districts in Oregon, developing one of the early manuals on how to implement these economic development tools, the "EID/BID Handbook". (Oregon Downtown Development Association, 1999) It worked with the City of Salem to establish its Salem Downtown Historic District,, with the City of Coos Bay to develop their market-based urban renewal plan, with the City of Redmond on its downtown action plan update, with the City of Coberg on its downtown plan (population 1000) and with many other small cities on plans and projects to enhance and improve their downtowns. It also worked as a consultant and advisor to ODOT on such projects as the "Neighborhood Street Design Guidelines" (Neighborhood Streets Project Stakeholders, 2000), "Parking Management Made Easy: a guide to taming the downtown parking beast" (Oregon Downtown Development Association, 2001) and the "Commercial and Mixed Use Development Code Handbook" (Oregon Transportation and Growth Management Program, 2002)

The report, "Main Street…when a highway runs through it: A Handbook for Oregon Communities" was conceived by Michael Ronkin, the Program Manager for the ODOT Bicycle and Pedestrian Program and Vicki Dugger, Executive Director of ODDA. (Swirsky, 2013) They talked about the difficulties of promoting multimodalism in small communities where the main street of the town was also a highway. There are inherent conflicts between the desires of highway planners to move automobiles quickly and the interests of multimodal planners seeking walkable environments and local officials trying to revitalize and enhance business districts. As one focus group participant noted, "Main Street is where you have parades" which is directly in conflict with the idea of it also being a highway. The ODOT Highway Design Manual was being updated during this time so they thought they would put together a companion document to help communities and ODOT think about how to handle this inherent conflict. (Transportation and Growth Management Program, 1999)

The project was funded by three state sources:

- The Transportation and Growth Management (TGM) Program, a joint program of the Oregon Department of Transportation (ODOT) and the Oregon Department of Land Conservation and Development (DLCD) housed in the DLCD, not ODOT.
- The ODOT Bicycle and Pedestrian Program, which is housed in ODOT's Active Transportation Section of the Transportation Development Division, along with the Transportation Enhancement Program (TEP), the Certification Program for Local Agencies, Program and Funding Services, the Sustainability Program and the Economic and Financial Analysis Unit.

- The Oregon Economic and Community Development Department, which gave a grant to the ODDA who then in turn gave the grant to TGM. (Transportation and Growth Management Program, 1999)

The project was overseen by a team that reflected the diversity of perspectives that the report was trying to reconcile. The Steering Committee included:

- Kent Belleque, Highway Design Manual Manager, ODOT Project Support - from the Active Transportation Section of the Transportation Development Division
- Michael Ronkin, Program Manager, ODOT Bicycle and Pedestrian Program, also from the Active Transportation Section
- Terry Wheeler, Transportation Design Manager, ODOT Technical Services, also from the Active Transportation Section
- Lidwien Rahman, TGM Grant Coordinator, ODOT Region 1, also from the Active Transportation Section
- Vicki Hilliard (later Dugger), Executive Director, ODDA
- Lynn Peterson, 1000 Friend of Oregon (Swirsky, 2013)

Funds were used to hire a consulting team to do the actual research and write the report. The project team was headed up by Karen Swirsky and three other staff from David Evans and Associates. The team also included an individual from Walkable Communities and one from Kliewer and Associates. The team held a charrette with 60 people from around the state, including highway planners from ODOT, multimodal advocates from 1000 Friends of Oregon and people from small towns from around the state to understand the difficulties occurring on highways that run through downtowns. (Ronkin, 2013) It conducted research on the best ways of accommodating both automobiles and pedestrians. It also wrote the report, with oversight from the Steering Committee. Having a consulting group do the research and develop the report helped the Steering Committee come to agreement on the various ideas within the document. (Swirsky, 2013)

The report has several focuses. One focus is on describing the problems that occur with conflicts between highways and pedestrians. A second focus is on specific physical design features that can be implemented to better accommodate pedestrians on roadways. This includes items such as local street network changes, roadway design, bikeways, channelization, corner radius changes, crosswalk standards, use of medians, on-street parking, pavement markings, refuge islands, signage, textured pavement, traffic controls, lane width standards, curb extensions, driveway management, sidewalk standards, street furniture, trees, landscaping, adjacent land use zoning, building set-backs and off-street parking. A third focus is what resources are available for remediating issues with roadways and how to access them. This includes how to access ODOT funding processes. The last focus is how the highway planning processes work, including how ODOT and local planning can work together.

This report is advisory to local units of government and was not formally adopted by ODOT. It is still in print despite being completed in 1999 and is still distributed and used by smaller cities and towns to inform their downtown zoning and planning activities and in working with ODOT projects.

One of the biggest arguments with the creation of the report was whether it would contain actual dimensions for things such as sidewalks, road widths and turn lanes. ODOT did not want to include those sorts of things in the report. (Ronkin, 2013) At the same time that this report was being written, the ODOT Highway Design Manual was being updated. The chief author of the ODOT Highway Design Manual sat on the Steering Committee of "A Highway Runs Through It". The "Highway Runs Through It" project influenced and was influenced by the Highway Manual update. Because of these conversations, new categories of roadways with their own design standards were created in the Highway Design Manual. In addition to having freeways, expressways, arterials, collectors, and local roads, ODOT also included Urban Business Areas (UBA), Commercial Centers (CC) and Special Transportation Areas (STA) as road classifications.

These designations are:

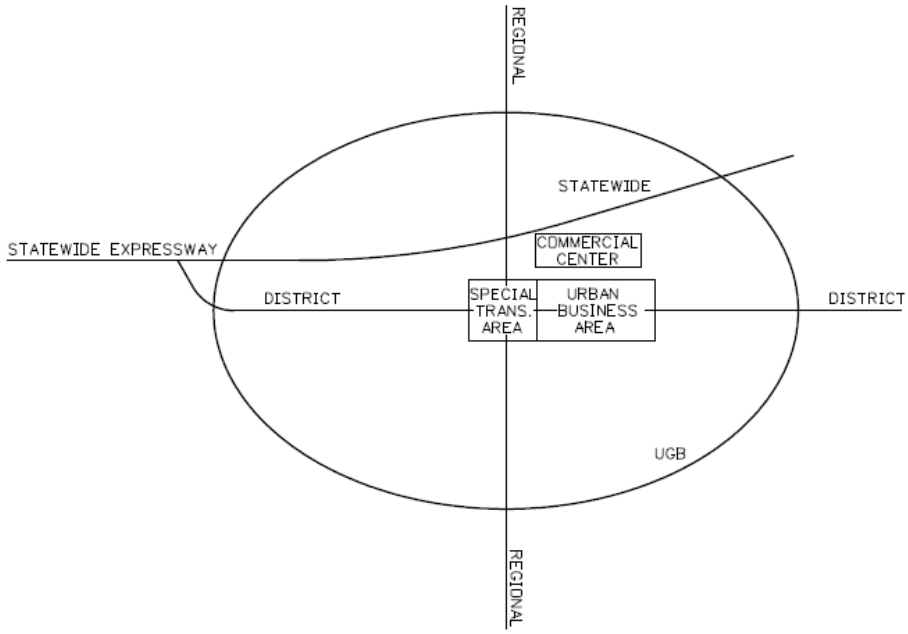

Figure 10: Oregon Highway Categories
(Oregon Department of Transportation, 2012)

A Special Transportation Area (STA) is usually the downtown of a small city or town. An STA is the way that ODOT formally recognizes certain stretches of highways where pedestrian needs must be balanced with automobile needs. Local units of government must apply to ODOT to have an STA designated. The STA must be identified within a local comprehensive plan, transportation system plan, corridor plan, or refinement plan, and adopted by the Oregon Transportation Commission. The ODOT Highway Manual designates STA as having the following characteristics:

- "Buildings spaced close together and located adjacent to the street with little or no setback.
- Sidewalks with ample width located adjacent to the highway and the buildings.
- A well-developed parallel and interconnected local roadway network.

- Streets designed for ease of crossing by pedestrians.
- Public road connections that correspond to the existing city block-private driveways are discouraged.
- Adjacent land uses that provide for compact, mixed-use development.
- On street parking and/or shared general purpose parking lots which are located behind or to the side of buildings.
- Well-developed transit, bicycle and pedestrian facilities, including street amenities that support these modes.
- Posted speeds of 25 mph or less." (Oregon Department of Transportation, 2012)

The 1999 Oregon Highway Plan describes an Urban Business Area as:

> "An Urban Business Area is a highway segment designation that may be applied to existing areas of commercial activity or future nodes or various types of centers of commercial activity within urban growth boundaries or urban unincorporated community boundaries on District, Regional or Statewide Highways where vehicular accessibility is important to continued economic viability. Highways that have posted speeds of 35 miles per hour or less are permitted access spacing standards that reflect the dual objectives of providing local access to meet the needs of abutting properties while maintaining existing speeds to move through traffic. For highways posted greater than 35 miles per hour, the UBA designation is available as recognition that vehicular accessibility and circulation are often as important as pedestrian, bicycle and transit accessibility, but a management plan is required to ensure that these objectives are balanced. Safe and regular street connections are encouraged. Transit turnouts, sidewalks and bicycle lanes are accommodated."

The ODOT Highway Manual then lays out design requirements for these areas. These requirements reflect the needs for the different land use, bicycle and pedestrian activity, transit, and small town motorist behavior. The Highway Manual specifically calls out the need for multimodal design in these locations. Because of this, design features focus on slow vehicular speed, traffic calming, pedestrian movements and streetscape appearance rather than the best ways to move vehicles rapidly. Some of these features include:

- Narrower travel lane width
- Right and left turn specifications that accommodate pedestrians
- Slower speeds, typically 25 or 30 miles an hour
- Sidewalks wider than ten feet, preferably wide enough to accommodate streetscape amenities like trees or street furniture to be barriers between pedestrians and automobiles
- Use of buffer strips, medians, raised medians and curb extensions
- Designs criteria for shoulders and bike lanes on the highway
- Accommodation of and criteria for parallel and diagonal parking
- Specific access management requirements
- Traffic calming techniques, specifically referencing the "A Highway Runs Through It" document for examples

An example of how these design features are incorporated into projects is a project recently done in Sisters, Oregon. A $2.2 million project was approved to replace existing pavement. At the

same time, roads were narrowed, sidewalks were widened, ADA ramps were constructed and new curb extensions were created to reduce traffic speeds. Turn lanes were changed to accommodate pedestrians. Pedestrian islands were built. These changes followed the ODOT Highway Manual requirements and were also in conformance with the City's comprehensive plan, which had adopted design features from "A Highway Runs Through It".

Conclusions: Oregon provides a good example of integration of traditional highway planning and multimodal planning. Because of work done by the State land use planning entity and the DOT, the State's Highway Manual contains multimodal specifications for the portions of highways that run through small towns. In addition, community members have a resource to see multimodal options they can advocate for in their own communities. They also have a tool that explains the State's planning and funding processes to help them to help them successfully implement multimodal projects.

The Minnesota Department of Transportation and its partners could undertake a similar effort. MnDOT could change its Road Design Manual to include a functional classification for the portion of highways that run through small towns and cities. Currently this Manual includes a "special conditions" section which covers multimodal options but this is separate and not integrated into the rest of the Manual. For example, the design speed section does not include an option for the portion of roadways that run through small towns. If MnDOT were to add a functional classification for the portion of highways that run through small towns, all of the items in the "special conditions" could be integrated into the core of the Design Manual.

Table 2-5.06A (Dual Unit)
DESIGN SPEED

Conditions				Design Speed, km/h (mph)		
				ADT		
Type of Highway	Setting	Functional Class	Terrain	<1500	1500-3000	>3000
2-Lane Highway	Rural	Principal Arterial	Level	100-120 **(60-75)**		
			Rolling	90-110 **(55-70)**		
			Mountainous	60-100 **(40-60)**	80-100 **(50-60)**	
		Minor Arterial	Level	100-110 **(60-70)**		
			Rolling	80-110 **(50-70)**		
			Mountainous	60-100 **(40-60)**		80-100 **(50-60)**
		Collector	Level	80-100 **(50-60)**	100 **(60)**	
			Rolling	60-100 **(40-60)**	80-100 **(50-60)**	
			Mountainous	50-100 **(30-60)**	60-100 **(40-60)**	
	Urban High-Speed	Arterial	All	70-100 **(45-60)**		
		Collector				
	Urban Low- Speed	Arterial	All	50-60 **(30-40)**		
		Collector				
Freeway	Rural	Arterial	Level	110-120 **(70-75)**		
			Rolling	110 **(70)**		
			Mountainous	80-110 **(50-70)**		
	Urban	Arterial	All	80-110 **(50-70)**		
Multi-Lane Highway	Rural	Arterial	Level	100-120 **(60-75)**		
			Rolling	100-110 **(60-70)**		
			Mountainous	80-110 **(50-70)**		
	Urban High-Speed	Arterial	All	70-110 **(45-70)**		
	Urban Low-Speed	Arterial	All	50-60 **(30-40)**		
		Collector				

Figure 11: MnDOT Roadway Design Manual - Design Speeds
(Minnesota Department of Transportation, 2012)

MnDOT and its partners could also undertake the same process of developing a document to inform cities about what their alternatives are for highway design in their communities. This

way, they can be better advocates for their community. They can also better build multimodal highway designs into their own local plans. Another thing that the "A Highway Runs Through It" did was explain to local units how the highway funding process works and how to be successful advocates in that process. Such a document could be a useful tool for improving coordination of planning between MnDOT and local partners.

Case Study 5: Transportation Impact Fees

Roads have traditionally been paid for with tax revenues instead of fees because it is hard to link the exact benefit that someone receives from a road to the cost of providing that road. Obviously there is a benefit to someone driving or riding in a vehicle but there is also a benefit from the economic activity generated by a transportation system. This second benefit can be much harder to quantify. In Minnesota, local roads have been paid for primarily with property taxes and revenues from higher levels of government, while state roads have been paid for primarily with a combination of the state gasoline tax, motor vehicle registration taxes, motor vehicle sales taxes and federal revenues.

But over the last 30 years, the federal government has been providing less financial assistance for state and local roads. This has been coupled with a reluctance to raise the gasoline tax and also several downturns in income, property and sales taxes. Voters are resistant to increased general tax revenues. This has created a desire to find other alternatives for transportation. One approach has been the use of fees instead of taxes. Fees can more tightly target payment to those who benefit from projects, which make them attractive compared to taxes.

There are a number of different approaches to using fees to fund highways and roads. Three outlined here are concurrency fees, development or impact fees and special districts.

Transportation Concurrency Fees

One way of using fees discussed earlier in this paper is a Transportation Impact Fee related to concurrency laws. "Concurrency" is a regulatory process that requires local governments provide adequate public facilities and services at the time new development occurs. If government systems such as roads, schools and fire stations, cannot handle growth, growth is not allowed. Decisions about land use, development and population growth are directly linked to capacity in government infrastructure. The goal is for population growth to not negatively impact existing residents. Concurrency was first mandated in Florida in 1985 and in the State of Washington in 1995. These are the only two states with full concurrency programs.

Florida concurrency laws include sanitary sewer, solid waste, drainage, water supply and drinking water. Up until 2011, Florida also included transportation, parks and schools. In Florida, transportation has been removed from State concurrency requirements due to the difficulty in funding adequate transportation systems. Despite the statewide law having been repealed in 2011, many local units of government in Florida still include transportation concurrency in their local planning processes. State law allows local units to include capacity for alternative modes such as transit and pedestrian/bicycle facilities as well as roads and highways.

This has led to systems which provide incentives for multimodal land use development over expansion of the highway system. Some are outlined earlier in this document.

In the State of Washington, "appropriate provision" must be made for "open spaces, drainage ways, streets or roads, alleys, other public ways, transit stops, potable water supplies, sanitary wastes, parks and recreation, playgrounds, schools and school grounds" (RCW 58.17.110) prior to the approval of any development. There also must be a plan for an adequate water supply. (RCW 19.27.097)

To implement concurrency laws, local governments maintain a "concurrency management system," or a database that tracks the capacity of existing infrastructure and any planned capacity expansions. Based on this data, the local government develops a “level of service” for each type of public infrastructure and an analysis of the infrastructure expansion needed to maintain that level of service. When a development proposal comes forward, it is analyzed to determine whether there is capacity in systems to support that development. A “concurrency review” is conducted to determine if a development can be accommodated and to reserve capacity in public systems. If there is capacity, then that capacity is “reserved” for that development. If the project cannot be accommodated under existing capacities, the community either declines the project or adds projects to its capital improvement program to build needed capacity.

Because there is such a tight connection between development and systems that support development, it is possible to know clearly what costs are being driven by development. In the State of Washington, State law 82.02.050-.090 allows cities to impose Transportation Impact Fees (TIF) on new development to help manage transportation demands from growth. The City of Bellingham has had a Transportation Impact Fee (TIF) mandated by City ordinance (BMC 19.06) since 1993. As an example, in 2012, a new single family detached residential house that generates 1.01 p.m. peak vehicle trips would be charged a TIF of $1,931. Funds are then used for improvements to the transportation system based on the approved CIP.

The City is broken down into 16 Concurrency Service Areas (CSA). Impacts are calculated for roadways as well as sidewalks, bicycle lanes, multi-use trails, transit service, and arterial streets for each CSA. This data is compiled and converted into Person Trips Available (PTA) for each CSA so impacts of development can be calculated for each part of the city. Data is updated annually. This data is also used to evaluate where there are opportunities for new growth that can be supported by the existing and planned transportation system.

TIF can also be modified to provide incentives to direct development into land use that supports transportation alternatives. If a project is redevelopment, the TIF is zero. If an accounting office is developed into a restaurant, the PTA for the restaurant would be calculated but offset by the PTA of the previous office use. This gives a financial incentive for redevelopment over new development. Also, there are incentives for locating in walkable environments. A project in downtown where a sizable number of individuals would be able to walk to work or take transit, fees can be reduced up to 50%. This provides a financial incentive to locate housing in walkable environments, in mixed use and along transit lines. Bellingham has also designated several TOD (transit-oriented development) areas, known as “Urban Villages” which are designed to have walkable environments. Locating development in these areas can reduce TIF by up to 50%. This is done by giving credits for the following activities:

- Locating in the walkable environment of an urban village: 15% reduction
- Fronting on a high frequency bus line: 10% reduction
- ¼ mile of a high frequency bus line: 7% reduction
- Fronting a standard transit route: 5% reduction
- ¼ mile of a standard transit route: 2% reduction
- Employer mandatory commitment to trip reduction program: 10% reduction
- 2 year transit pass for employees or residents: 1% per pass
- Car share parked on site: 2% per car
- Car share membership provided per unit or employee: 2% per membership (Comeau, 2013)

Transportation Development Fees/Transportation Impact Fees

Although the States of Florida and of Washington have implemented concurrency, some states have implemented other approaches to charging for new development. A number of states authorize local units of government to levy a development fee or impact fee. The logic is that new development is driving transportation capacity issues so new development should pay for increased capacity. Fees are then dedicated to highway and roadway expansion.

Fees are levied within a district. District size varies. There are examples of fees at a multi-county level or sub-county level. Every fee has a basis of allocation, or the thing that it is basing its rates on. Impact fees are usually based on the type of development and an estimate of the travel that will be generated by that type of development, although there are also other examples such as using property value.

For example, in California, counties are authorized to set up an "area of benefit" (AOB) or special taxing district under California Government Code Section 66000-66025, the "Mitigation Fee Act." New development that contributes additional vehicle trips to the road network is subject to a fee. Revenues from the fee are used for highway and roadway expansion.

Contra Costa County, California is the county to the east of Oakland. It includes developed areas as well as unincorporated areas and undevelopable mountains. It is experiencing rapid population growth. It has established 15 "areas of benefit" within the county to fund the arterial road network. Fees are based on an estimate of peak hour trip generation. Money collected within an AOB is used to fund road improvement projects that mitigate traffic impacts generated by new development. Specific fees can be linked to specific roadway projects or a slate of project. Fees and districts can also overlap. A set fee is charged for single family homes and multifamily homes. Depending on the district, the fee can be the same on a per-housing unit basis or different. Office space, light industrial, heavy industrial and commercial uses are charged on a per-square foot basis in many districts. Other uses are charged based on the number of trips that they generate. Fees for individual districts vary from a low of $203 in 2013 for the Dougherty Road Maintenance Fee to a high of $6,888 for the Reliez Valley Plan. As noted, fees are cumulative. (Contra Costa County, 2013)

For regional planning, special districts have been established to levy fees and finance transportation projects to fund the capital programs of planning entities. In Costa County, the TRANSPLAN Committee creates long-range transportation plans for the cities of Antioch,

Brentwood, Oakley and Pittsburg; the unincorporated communities of Bay Point, Bethel Island, Byron, Discovery Bay and Knightsen; and Contra Costa County. There are similar organizations in other parts of the County. (TRANSPAC, Southwest Area Transportation Committee and West Contra Costa Transportation Advisory Committee)

The East Contra Costa Regional Fee and Financing Authority was created as a mechanism for providing funding for transportation projects in eastern Contra Costa County identified by the TRANSPLAN Committee. The Authority is a joint powers agency established in 1994 by the Cities of Antioch, Brentwood, Oakley and Pittsburg and Contra Costa County, which acts on behalf of the unincorporated parts of the county. It provides funding through a development fee levied on new development throughout its jurisdiction. In 2013, the fee was $9,486 per single family residential unit and $5,824 per multifamily residential. This amount is discounted by half, however, due to the poor economy. It is projected that this fee will raise $425 million from 2014 to 2030. (Contra Costa County, 2013)

Special Transportation Districts

The Census Bureau defines "special districts" as:

> "Organized local entities other than county, municipal, township or school district governments. Special districts are authorized by state law to provide only one or a limited number of designated functions, and with sufficient administrative and fiscal autonomy to qualify as separate governments; includes a variety of titles; such as, districts, authorities, boards, commissions, etc., as specified in the enabling state legislation." (United States Census Bureau, 2013b)

Special district have a number of characteristics. They are typically organizations that are autonomous from but chartered by cities, counties, townships or states. They have defined geographic areas. These areas can be sub-municipal all the way to multi-county entities. They typically provide only one public service as opposed to a city or a county that provides multiple services. They are legally public entities and carry the legal rights and responsibilities of government such as having the right to enter into contracts, sue and be sued and acquire and dispose of property. Governing boards are either chosen by other public officials or are elected. Because they have independent governing boards, they usually have their own staff which operates with substantial administrative and financial independence.

In 2012, there were over 38,000 special districts. Special districts are the fastest growing governmental unit in the United States and the largest source of revenue increases in government overall.

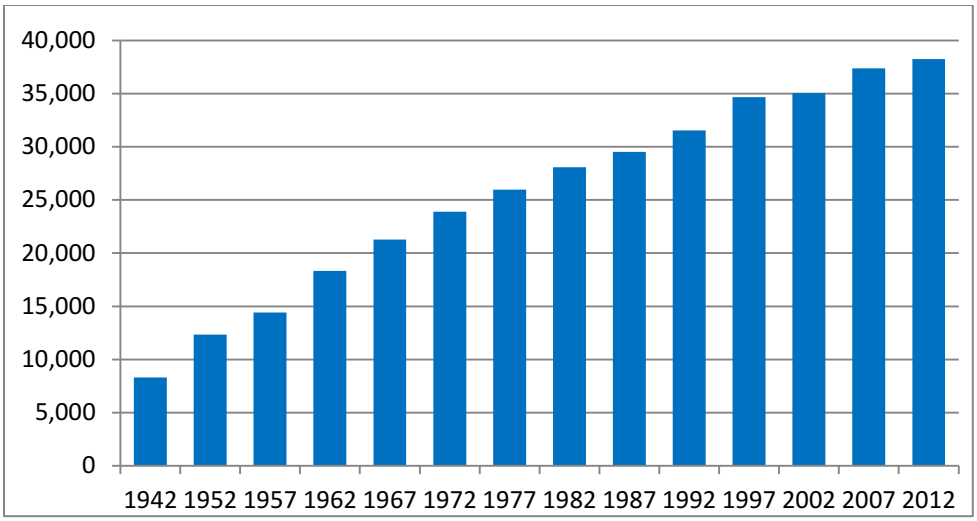

Figure 12: Special Districts in the United States
(United States Census, 1942-2012)

The distribution and usage of these districts varies widely throughout the United States. For example in Colorado, special districts accounted for over 90% of all local governments in Colorado. (Special District Association of Colorado, 2012) There are now over 1100 special districts, grouped into 77 different types of special districts. Each has its own governance and funding mechanism. (Special District Association of Colorado, 2012) In Colorado, there are special districts to fund water, sewer, parks, fire and ambulance services and hospitals and clinics. In other states, there are districts for water conservancy districts, weed control, post office boxes, lighting, harbor development, drainage ditches, levees, libraries, economic development, tourism, insect control, sports facilities and many other services.

The growth of special districts has been fueled by a number of factors. First, there has been opposition to increasing general taxes. The growth of special districts in Colorado took off in the wake of the 1992 adoption of its Taxpayer Bill of Rights. Second, because special district services are targeted narrowly, they are an easier sell when government needs to undertake new project. Citizens can clearly see that the district funding is linked to a specific service, which is much more difficult for general purpose governmental entities. Third, special districts are less visible than multi-purpose government, which makes them more attractive.

Every special district has a mechanism to raise revenues. Taxes are mandatory while fees are imposed only when an individual or business undertakes an action which triggers the fee. Both taxes and fees have a "basis" or the thing that they are taxing. In Minnesota, there are three major taxes, the sales, income and property tax. The basis for each one is sales, income and the value of property. For fees, typically something is being measured that is the basis of a fee. Gallons of water consumed, sanitary sewage produced, feet of impermeable surface (storm water fees) are all bases for fees. Because most special districts provide only one service, they often also have only one fee. Revenues raised can be used either for capital improvements or operating costs or both depending on the district.

The Census Bureau identified 1099 districts as being solely for highway purposes as of 2012. (United States Census, 1942-2012) The number varied substantially by state.

Figure 13: Special Service Districts by State

United States	1,099
Arizona	2
Arkansas	25
California	61
Colorado	27
Connecticut	29
Florida	3
Idaho	65
Illinois	25
Iowa	3
Kansas	3
Kentucky	7
Louisiana	5
Maine	1
Maryland	2
Massachusetts	5
Michigan	2
Mississippi	4
Missouri	431
Nebraska	21
Nevada	8
New Hampshire	6
New Jersey	1
New York	1
Ohio	9
Oklahoma	4
Oregon	106
Pennsylvania	4
Rhode Island	1
South Carolina	1
South Dakota	204
Texas	3
Utah	4
Virginia	2
Wyoming	24

(United States Census, 1942-2012)

Minnesota is one of 16 states that do not use some sort of special district for highway purposes. Minnesota does use special districts for transit funding however. The Metropolitan Council levies property taxes within the Metropolitan Transit Taxing District, a sub-seven county taxing and service district, to fund Metro Transit and other transit programs within the Twin Cities area.

Likewise, Minneapolis has received authority to create a streetcar funding district in a sub-section of Minneapolis. This district will capture new property tax revenues to fund the streetcar line.

Many states use special districts for highway purposes although usage also varies by state. In Oregon, for example, districts are used to fund lighting for highways. Other states use special districts to fund capital improvements and maintenance for state highways and/or local roads. Some examples include:

- Arkansas Rural Road Improvement Districts: The State has been able to establish rural road improvement districts since 1915 although authority currently vests with counties to create districts. (The Encyclopedia of Arkansas History and Culture, 2013) Districts can be established for improvement of roads, highways and streets not part of the state highway system. The court system initially appoints the governing board and then the board appoints new members. (United States Census Bureau, 2013a) Funds are raised through a property tax levy although other state and local funds can also be used for projects. Property tax levies are to pay for debt service for capital expenditures but not maintenance costs. (Arkansas Statutes, Chapter 17)
- Colorado Regional Transportation Authorities: Cities and counties can create special authorities (districts) for road improvements. The district is governed by elected officials from the entities creating the authority. The authority has a wide range of revenue options available – tolls and usage charges, sales taxes, vehicle registration fees, hotel taxes or property taxes. An amendment in 2009, to be repealed effective January 1, 2019, also requires voter approval for creating or increasing taxes and issuing bonds. (United States Census Bureau, 2013a) For example, the Pikes Peak Rural Transportation Authority (PPRTA) includes Colorado Springs, Manitou Springs, Green Mountain Falls and El Paso County. It was created by voter referendum in 2004 when voters approved a 1% sales tax for a specific list of projects. It uses 55% of funds for highway capital projects, 35% for highway maintenance projects and 10% for transit. Recently it has funded interchanges, bridge repair, road widening and safety improvements. Funding will sunset in 2019 without voter renewal. (Pikes Peak Rural Transportation Authority, 2013)
- Idaho Highway Districts: Highway districts are created through local referendum and may include part of a county or multiple counties. Each district has its own independently elected board. It can levy property taxes as well as receive funds from other levels of government. (United States Census Bureau, 2013a) An example is the Ada County Highway District. It is responsible for short-range planning, construction, maintenance, operations, rehabilitation and improvements to urban streets, rural roadways (excluding state highways) and bridges. It includes Boise, Eagle, Garden City, Kuna, Meridian, Star and the unincorporated areas of Ada County. It maintains approximately 2100 miles of roads and streets and has 300 employees. It has an elected governing board. (Ada County Highway District (ACHD), 2013)
- Missouri Transportation Development Districts (TDD): Districts may be created to develop highway (both state highways and local roads), water, air, railroad, or transit facilities. Districts are created when the court system is petitioned by registered voters, a

local transportation authority, a multi-jurisdictional transportation authority or property owners. Votes are required:

- If property owners form the TDD, owners cast their ballot by petitioning the court, which approve any measure submitted to them as voters.
- If a multi-jurisdictional transportation authority forms the TDD, the question of TDD formation and funding mechanism are put forth to qualified voters.
- If the funding mechanism is sales tax, there is one vote for organization of the TDD and the imposition of sales tax.(Missouri Department of Transportation, 2009)

Once the courts approve the district, it is created as an independent governmental entity. Each district has a board of governors that can levy special assessments, property taxes, sales taxes, tolls or fees. (United States Census Bureau, 2013a) The Missouri Transportation Department can also provide funds to a TDD through a Partnership Agreement. If development will occur on state highways, a Partnership Agreement with MoDOT is also required. (Missouri Department of Transportation, 2009) The first TDD was created in 1997. (Klahr & Smith, 2010) There are several criticisms of TDD's in Missouri. One is that they are not established through voter referendum but are imposed by the court system. (Barker, 2009) A second criticism is that that they have often been used to finance transportation needs of private development rather than projects that broadly benefit a community. (Klahr & Smith, 2010) A third criticism is that they have poor public management practices. (Missouri State Auditor, 2012)

- South Dakota County Road Districts: Districts may be created for highway and roadway improvements. Citizens can petition their county government to put a proposal on the ballot for a county road district. A petition must be signed by 25% of registered voters for the county board to put district formation to voters. If approved by voters, there is a separate election to select a board of governors. This board has the ability to levy a property tax for road maintenance and improvements. They do not cover state highways.

Conclusion: As citizens have become more resistant to general tax increases, government has increasingly turned to special taxing districts for funding. For highways, there are a number of ways that these special districts can be established and used. The State of Washington uses concurrency fees while a number of states use development fees or impact fees. Still others just use special taxing districts to fund capital or operating needs. Minnesota is in the minority of states not using some sort of special taxing districts for funding highway projects. There may be an opportunity for the State to find a new way of funding transportation projects by asking the Legislature to create a law allowing local units to form special taxing districts. A new funding approach would not have to replace existing funding sources but could supplement existing sources. Also, it would be possible to share responsibility for highway funding with local units of government in ways that are not currently possible. Local units could not only be advocates for highway funding but could enact laws to provide highway funding in ways not currently possible. These funds could be used to do multimodal improvements on highways, especially in small towns and in other areas, as well as other highway projects.

Case Study 6: Clinton Iowa Complete Streets

"Complete Streets" is an idea that grew out of the biking community. In 2003, Barbara McCann, working for America Bikes, wrote a memo to the America Bikes board suggesting "complete streets" as a replacement for "routine accommodation," a term that had been used in the biking community to argue for accommodating biking routes when building roads. (National Complete Streets Coalition, 2013) The idea of Complete Streets is that streets and roads should accommodate all individuals regardless of how they travel. Roads should not only accommodate automobiles but also pedestrians, bicycles and transit. People of all ages and abilities should be able to move along and across streets safely and efficiently regardless of their mode of travel. Roads should also complement the land use around them, not just move automobiles as quickly as possible. If commercial development is along the roadway, the roadway should give easy access to the development. If there is industrial development along the roadway, the road should support trucks and truck movement as well as other modes. If development around roads is dependent on walking or transit, roads should be designed to support the surrounding land use.

Clinton, Iowa is situated on the eastern border of Iowa, on the Mississippi River. It has an estimated population of 26,647 as of 2012. (United States Census Bureau, 2007- 2013) Two major highways pass through Clinton: U.S Highway 30, also known as the Lincoln Highway which runs nominally east to west and U.S. Highway 67, which runs nominally north to south, paralleling the Mississippi River. This section of the Lincoln Highway is both part of the Great River Road and a designated National Scenic byway. Iowa Highway 136 also passes through the northern end of Clinton. Both U.S. Highway 30 and Iowa Highway 136 cross the Mississippi River.

Clinton was founded as a river port in the early 1880's. From there, it grew into manufacturing and shipping. Its main focus today is agribusinesses. (Environmental Protection Agency, 2008) It had a major repair shop for the Chicago Northwestern railroad southwest of downtown until 1995. When it was clear that the rail yard was going to be closed, the community saw an opportunity to both improve the City and develop in more multimodal way. Business leaders, government leaders, community members and others rallied to redevelop this industrial area. Gil Janes, the project consultant, stated: "When the hospital or business community was trying to recruit doctors and professionals, they would avoid taking them down this corridor. It didn't present the kind of image they wanted to present." (Nothstine, 2012)

The City entered into a comprehensive planning effort to determine how to redevelop the area. There were a number of physical issues which needed to be addressed. The rail yard and surrounding properties had outdated buildings, many unaltered from the turn of the century. There was soil contamination. There were also incompatible land uses. Land to the east is industrial property which is adjacent to the river. Land to the west contains a mix of commercial and residential properties. There was a need to separate and buffer the industrial area from the residential area while still supporting both commercial and industrial needs.

Figure 14: Liberty Square Redevelopment Area Prior to Development
(Nothstine, 2012)

U.S. Highway 30 runs through this area. When planning was done, the road infrastructure was found to be inadequate to carry the projected traffic when the area was redeveloped. Creating a higher-speed four lane highway with a center turn lane would have required widening the off-street rights of way and increasing building setbacks. This would have substantially reduced space available for commercial uses alongside the roadway and the City wanted a commercial strip to buffer residences from industry. It also would have met the needs of automobiles but not other travelers. Because of this, a different solution was found. The highway would be divided into two roads for approximately 1.75 miles (17 blocks) and it would be a 35 MPH road instead of 55 MPH. As a result, they created Liberty Avenue, carrying traffic northeast bound and Comanche Avenue carrying traffic southwest bound. At the southern end, the two roads merge together again into a four lane road. (Nothstine, 2012) Planners reserved a 200 feet strip of land between the two roads, essentially one city block, for commercial development. This led to the creation of the Liberty Square Redevelopment Area. The project area includes 220 acres adjacent to U.S Highway 30, with approximately 340 commercial, industrial and residential parcels with 190 occupied residences and businesses at the time the project started. (Environmental Protection Agency, 2008) A number of non-conforming residences and industrial uses were removed. The one block area between Liberty Avenue and Comanche Avenue will become a buffer of commercial area between the industrial area to the east of Liberty Square and the primarily residential zone to the west.

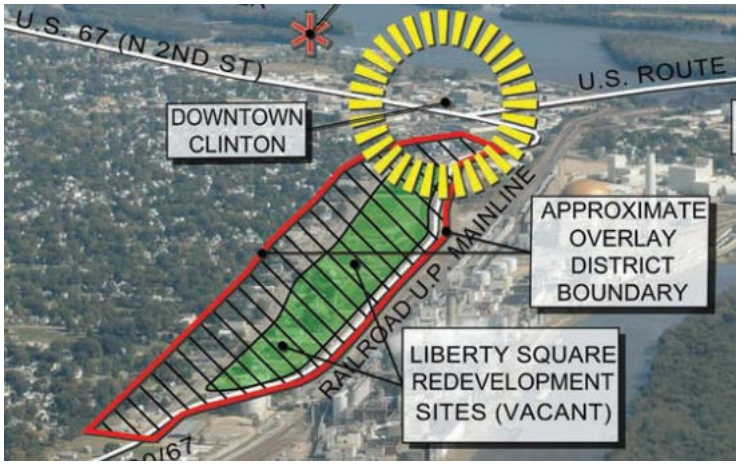

Figure 15: Liberty Square Redevelopment Area
(Nothstine, 2012)

At this point, non-conforming uses have been removed, soil remediation is complete and construction of Liberty and Comanche Avenues are complete. The City is beginning to market the properties between the two roads for commercial use. To incentivize investment, Clinton County has designated Liberty Square as an Enterprise Zone, and the City of Clinton has made properties eligible for its Urban Revitalization Program. The Urban Revitalization Program provides three-year, 50% property tax abatement on property improvements.

As a complete streets project, a multi-use trail separated by landscaping has been installed. It has a direct connection to the Mississippi River Trail. There are brick crossing areas and park-like medians. Also, a pedestrian-friendly entrance to the City has been installed. As the developable land is built out, design elements supporting complete streets will be incorporated.

Figure 16: City of Clinton Trail
(Nothstine, 2012)

The overall cost of the project so far has been $50,665,000. Sources and uses include:

- Environmental Protection Agency (EPA) Brownfield Remediation: and cleanup of 4.4 acres of former industrial property: $1,550,000
- Federal Housing and Urban Development (HUD): Low cost loans for cleanup: $2,340,000
- Iowa Economic Development Authority: Property Acquisition: $675,000
- Federal Transportation, Treasury, Housing and Urban Development (TTHUD) Grant: Property acquisition: $19,300,000
- IDOT: Liberty Avenue Construction: $9,900,000
- IDOT: Comanche Avenue Construction: $12,000,000
- IDNR: Pathway construction and connections: $2,200,000
- Federal DOT Tiger Grant: Transportation enhancements:$2,700,000

Conclusion: The City of Clinton had a major employer leave in 1995. This triggered a comprehensive plan which put in place a long-term plan to redevelop a key industrial area into a walkable, multimodal environment. The City has worked to fund and implement this plan for

almost 20 years. This work is now paying off with the implementation of a Complete Streets project which will lead to the implementation of a new multimodal commercial area. MnDOT does include supporting Complete Streets in its Highway Project Development Process but it may want to better integrate the design elements into its highway planning process. It may also want to provide a design document similar to the "A Highway Runs Through It" document to help inform local units of government how to better incorporate Complete Streets into their design process. They may also want to include case studies like this one to show how it can take effort over a long period of time to integrate multimodal design into already developed areas.

Chapter 5: Conclusions

Providing multimodal options in rural and small urban areas is a difficult task. With low population densities, very high levels of automobile ownership and few sizable walkable destinations, it is difficult to promote travel in ways other than driving. But there are places that are doing so and doing so in new and innovative ways. There are ways to improve transit options, regardless if you are in an exurban area, destination area or production area. It is also possible to make trail or pedestrian improvements that promote walking and biking. Some towns are abandoning automobile-oriented development and instead planning walkable and bikeable environments. Some have gone further and use financial incentives to entice multimodal land development. Some places are exploring lower speed vehicles, even in places with winters like Minnesota. Most of these options are available to Minnesota.

This paper also looked at six case studies in more depth to see what opportunities there may be for Minnesota to change its programs or approaches. In Olympia, Washington, citizens were successful at linking walking with recreation to increase funding for retrofitting sidewalks. This linkage provided the opportunity to increase multimodalism in this community. In Minnesota, important opportunities exist to link multimodalism and recreation. The recreation community can be a strong ally in promoting the development of trails as well as sidewalks and walkable environments. Parents and school-based activities may be an untapped source of advocacy and support for multimodal improvements.

Despite being 47th in population density, North Dakota has a robust transit system in its rural areas. It has done so by promoting a number of strategies. It has concentrated its services along key travel corridors. There is overlapping service among various providers in these corridors with coordinated schedules, giving riders multiple opportunities for trips in those corridors in any given week. Service is provided both to local centers and larger regional centers, even if those regional centers are outside the service area of the transit provider. This provides travelers access to a wider range of goods and services.

Rural transit providers in Minnesota could look at concentrating more of their trips in the state's interregional corridors, similar to North Dakota. This would provide more opportunities to make trips and also to obtain a wider range of services. They could also increase coordination in their schedules, providing more opportunities for transit travel in these corridors.

The City of Mesa had an option for qualified individuals to recruit their own volunteer drivers and have those drivers reimbursed. When this was administered by a small non-profit for its clients, the program was successful. But when they tried to scale up this program, it was not successful. It became too difficult to verify that funds were being used as intended when the intimacy of one non-profit and its clients was lost. Because of this, the program was replaced by the use of with one that uses electronic fare media in taxi cabs, which are more auditable and publicly accountable. Were the Department of Transportation or its partners to experiment with this type of program, it would need to give careful though to the issues of verification of services.

Oregon provides a good example of integration of traditional highway planning and multimodal planning. Because of work done by the State land use planning entity and the DOT, the State's

Highway Manual contains multimodal specifications for the portions of highways that run through small towns. In addition, community members have a resource to see multimodal options they can advocate for in their own communities. They also have a tool that explains the State's planning and funding processes to help them to help them successfully implement multimodal projects.

The Minnesota Department of Transportation and its partners could undertake a similar effort. MnDOT could change its Road Design Manual to include a functional classification for the portion of highways that run through small towns and cities. Currently this Manual includes a "special conditions" section which covers multimodal options but this is separate and not integrated into the rest of the Manual.

MnDOT and its partners could also undertake the same process of developing a document to inform cities about what their alternatives are as for highway design in their communities. This way, they can be better advocates for their community. They can also better build multimodal highway designs into their own local plans.

Another thing that the "A Highway Runs Through It" did was explain to local units how the highway funding process works and how to be successful advocates in that process. Such a document could be a useful tool for improving coordination of planning between MnDOT and local partners.

A number of places have implemented special taxing districts to provide funding for transportation in rural and small urban areas. Belington, Washington has implemented a concurrency program that charges new development for expansion of the transportation system. This program charges for transit and trails as well as for roadways. It also provides financial incentives for multimodal development. Many other states also use special taxing districts. Some places charge transportation impact fees for new development while others simply use special taxing districts as a mechanism to pay for regional or local transportation improvements. Minnesota is in a minority of states that continues to rely on state-wide resources rather than special taxing districts for roadway and trail projects. It would be possible for Minnesota to use these other tools, however by asking the Legislature to create a law allowing local units to form special taxing districts. A new funding approach would not have to replace existing funding sources but could supplement existing sources. Also, it would be possible to share responsibility for highway funding with local units of government in ways that are not currently possible. Local units could not only be advocates for highway funding but could enact laws to provide highway funding in ways not currently possible. These funds could be used to do multimodal improvements on highways, especially in small towns and in other areas, as well as other highway projects.

Many small towns have implemented Complete Streets projects to increase walking and biking opportunities. Clinton, Iowa has been working on a project for almost 20 years to redo an old industrial area into a new multimodal commercial area. They have recently completed reconstruction of a key roadway as a Complete Street. Minnesota could continue to promote Complete Streets for small towns. MnDOT does include supporting Complete Streets in its Highway Project Development Process but it may want to better integrate the design elements into its highway planning process. It may also want to provide a design document similar to the

"A Highway Runs Through It" document to help inform local units of government how to better incorporate Complete Streets into their design process. They may also want to include case studies like this one to show how it can take effort over a long period of time to integrate multimodal design into already developed areas.

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Appendix A:

Fares for North Dakota Local Bus Routes

Fares for Standing Rock Service:

Bismarck to Fort Yates	$11.00
Bismarck to McLaughlin	$15.00
Bismarck to Mobridge	$20.00
Bismarck to Selby	$23.00
Bismarck to Onida	$32.00
Bismarck to Pierre	$37.00
Fort Yates to McLaughlin	$4.00
Fort Yates to Mobridge	$9.00
Fort Yates to Selby	$12.00
Fort Yates to Onida	$25.00
Fort Yates to Pierre	$30.00
McLaughlin to Mobridge	$5.00
McLaughlin to Selby	$8.00
McLaughlin to Onida	$21.00
McLaughlin to Pierre	$26.00
Mobridge to Selby	$4.00
Mobridge to Onida	$12.00
Mobridge to Pierre	$20.00
Selby to Onida	$8.00
Selby to Pierre	$13.00
Onida to Pierre	$5.00
Pierre to Sioux Falls	$52.00
Pierre to Rapid City	$46.80

(Standing Rock Public Transit, 2013)

Fares for West River Transit Beulah:

Beulah to Hazen (Mon – Fri)	$4.00
Beulah to Zap (Mon – Fri)	$4.00
Zap to Hazen (Mon – Fri)	$5.00
Beulah to Bismarck (Thurs)	$11.00
Golden Valley to Bismarck (Thurs)	$14.00
Hazen to Bismarck (Thurs)	$12.00
Zap to Bismarck (Thurs)	$13.00
Beulah to Dickinson (3rd Wed)	$11.00

Fares for Souris Basin, Burke County:

Powers Lake to Minot (Thurs)	$11.00
Kenmare to Minot (Thurs)	$10.00
Bowbells to Minot (Thurs)	$11.00
Donnybrook to Minot (Thurs)	$9.00
Carpio to Minot (Thurs)	$8.00
Burlington to Minot (Thurs)	$6.00

Fares for James River Transit

$2.50 for trips within the service district.
Bismarck and Fargo: $35 round trip.
Wells and Sheridan Counties to Minot are $20.

Fares for Valley Senior Services:

Cass County:

- To Fargo or in-county $5.00

Traill County:

- Out of County $6.00
- In-county $2.00

Steele County:

- To Fargo or Grand Forks or in-county $6.00

Rural Grand Forks County:

- To Fargo or Grand Forks or in-county $6.00

Richland County:

- To Fargo: $7
- In-county: $4.00
- To Fergus Falls: $6

Ransom County:

- Bus to Fargo: $6.00
- Van in-county: $3.00

Sargent County:

- Van to Fargo: $7.00
- Van in-county: $5.00
- Van to Aberdeen: $15.00
- To Lisbon and Oakes: $5.00
- To Wahpeton: $7.00
- In-county $5.00

Fares for South Central Seniors:

Barnes County:

- Fargo – Monday thru Friday - $10.00,
- Jamestown – Monday, Wednesday, Friday - $5.00

LaMoure County:

- Fargo – Every Thursday - $18.00
- Jamestown – Tuesday & Wednesday – $10.00
- Bismarck – Monday thru Friday - $10.00

Foster County:

- Fargo – 1st Wednesday and 3rd Tuesday - $15.00
- Jamestown – 1st, 2nd & 4th Tuesdays and 4th Wednesday - $8.00
- Bismarck – 3rd Wednesday - $15.00

Logan County:

- Napoleon area to Bismarck – Monday thru Friday - $10.00
- Gackle area to Bismarck – Monday thru Friday - $13.00
- Napoleon area to Jamestown – Every Monday & Thursday –$13.00

- Gackle area to Jamestown – Every Monday & Thursday - $10.00
- Napoleon area to Fargo – Every Thursday - $25.00
- Gackle area to Fargo – Every Thursday - $25.00

McIntosh County:

- Bismarck – Monday thru Friday – $15.00
- Jamestown – Monday and Thursday - $13.00
- Fargo - Every Thursday - $25.00

Griggs County:

- Fargo – Every Thursday - $8.00
- Jamestown – 1st & 3rd Tuesdays - $6.00

Emmons County:

- North of Linton to Bismarck – Monday thru Friday – $10.00
- South of Linton to Bismarck – Monday thru Friday – $13.00
- Fargo - Every Thursday - $30.00
- Jamestown – Every Monday & Thursday - $15.00

Fares for Northwest Transit (Bakken area):

Watford City to Williston – Monday, Wednesday, Friday - $10.00
Arnegaard to Williston – Monday, Wednesday, Friday - $10.00
Alexander to Williston – Monday, Wednesday, Friday - $10.00
Fairview to Williston – Monday, Wednesday, Friday - $15.00
Buford to Williston – Monday, Wednesday, Friday - $15.00
Trenton to Williston – Monday, Wednesday, Friday - $15.00
Watford City to Dickenson – Thursday - $20.00
Grassy Butte to Dickenson – Thursday - $15.00
Belfield to Dickenson –Thursday - $10.00
Watford City to Minot – Tuesday - $25.00
Mandaree/Keene to Minot - Tuesday - $20.00
New Town to Minot – Tuesday - $15.00